UNISYS

OS 2200 TCP/IP Application Services (TAS) File Transfer

User Guide

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Contents

About This Guide xvii

Section 1. Introduction

1.1. What Is TAS? 1-1
1.1.1. Communication Protocol is TCP/IP 1-1
1.1.2. TAS Components 1-1
1.1.3. Homogeneous/Heterogeneous 1-2
1.1.4. Local/Remote/Foreign Hosts 1-2
1.2. What Is the File Transfer Facility? 1-3
1.2.1. Types of File Transfers 1-3
1.2.2. Types of Files and Elements 1-4
1.2.3. File Transfer User Interfaces 1-4
1.2.4. Overview of File Transfer Functions 1-5
1.3. What Do I Need to Know to Use File Transfer? 1-7
1.3.1. Specifying File and Element Names 1-7
OS 2200 Hosts 1-7
OS 2200 and Non-OS 2200 Hosts 1-8
1.3.2. Specifying Host Identifiers 1-8
Using the Internet Physical Address Format . . . 1-8
Using the Logical Host Name Format 1-9
When You Should Not Specify a Local Host-id . 1-9
When You Should Specify a Remote Host-id . . . 1-9
1.3.3. Methods of Transferring Files 1-10
Transferring Files using the TRANSFER Command 1-10
Transferring Files using GET and PUT Commands 1-10
Using Other FTP Commands in an Open Session 1-11
1.3.4. Error Messages 1-11
1.3.5. Checkpointing 1-12
Contents of Checkpoint File 1-13
Results of an Unsuccessful File Transfer 1-14
Results of a Successful File Transfer 1-14

Section 2. Getting Started with the Menu Interface

2.1. Starting and Ending a Menu Interface Session 2-1
2.1.1. Starting File Transfer 2-1
2.1.2. Starting and Ending a Session 2-2
2.1.3. Exiting File Transfer 2-2
2.2. Using the Menu Interface 2-3
2.2.1. Sections of a Command Screen 2-3
Using the Header Section 2-3
Using the Function Key Section 2-4
Using the Command Section 2-5
Using the Message Section 2-7
2.2.2. Accessing Command Screens 2-7
Accessing a Command Screen from the MAIN MENU 2-7
Accessing a Command Screen from Another Command Screen 2-9
2.2.3. Transmitting a Command Screen 2-9
2.3. Using On-Line Help for Screens 2-10
2.3.1. Types of Help Available 2-10
2.3.2. Accessing General Help 2-10
2.3.3. Accessing Command Screen Help 2-11
2.3.4. Accessing Field Help 2-12
2.3.5. Accessing Error Message Help 2-14

Section 3. Using the Menu Interface

3.1. File Transfer Command Screens 3-1
3.2. Reserving Storage on a Remote Host for the Transferred File (ALLOCATE Screen) 3-2
3.3. Changing to the Parent Directory (CHANGE TO PARENT DIRECTORY Screen) 3-5
3.4. Changing the Working Directory (CHANGE WORKING DIRECTORY Screen) 3-8
3.5. Deleting a File (DEALLOCATE Screen) 3-11
3.5.1. Deleting a File on a Local Host 3-12
3.5.2. Deleting a File on a Remote Host 3-13
3.6. Deregistering a File (DREGISTER Screen) 3-15
3.6.1. Deregistering All File Names Associated with an Application-ID 3-16
3.6.2. Deregistering FilenamesThat Have No Associated Wildcard 3-18

3.6.3. Deregistering FilenamesThat Match a Specified File Name . . . 3-20
3.6.4. Deregistering FilenamesThat Were REgistered With a Wildcard . . . 3-22
3.7. Getting Help (FHELP Screen) . . . 3-25
3.7.1. Listing Available Functions on a Local Host . . . 3-26
3.7.2. Listing Available Functions on a Remote Host . . . 3-28
3.8. Transferring Information Requested by a Foreign Host (FSITE Screen) . . . 3-30
3.9. Requesting a File During a Session (GET Screen) . . . 3-33
3.10. Opening a Session with a Remote Host (LOGIN Screen) . . . 3-35
3.11. Making a Directory on a Remote Host (MAKE DIRECTORY Screen) . . . 3-38
3.12. Printing the Current Directory on a Remote Host (PRINT WORKING DIRECTORY Screen) . . . 3-41
3.13. Sending a File During a Session (PUT Screen) . . . 3-43
3.14. Registering a File for Event Notification (REGISTER Screen) . . . 3-45
3.14.1. Converting a File Name to a File-ID . . . 3-45
3.14.2. Incoming File Transfer . . . 3-46
Overview . . . 3-46
Run Stream Selection . . . 3-47
3.14.3. The Register Screen . . . 3-49
3.14.4. Registering a Filename . . . 3-51
3.14.5. Registering a Filename with a Wildcard Character . . . 3-52
3.14.6. Registering Using One-Time Registration and Save Status . . . 3-53
3.15. Removing a Directory on a Remote Host (REMOVE DIRECTORY Screen) . . . 3-55
3.16. Renaming a File (RENAME Screen) . . . 3-58
3.17. Restarting a File Transfer (RESUME Screen) . . . 3-61
3.17.1. Restarting a File Transfer (within a Local Host) . . . 3-62
3.17.2. Restarting a File Transfer (Local to Remote) . . . 3-63
3.17.3. Restarting a File Transfer (Remote to Local) . . . 3-64
3.17.4. Restarting a File Transfer (between Remote Hosts) 3-65
3.17.5. Specifying a Restart Point for a File Transfer Recovery . . . 3-66
3.18. Getting Filename and File Registration Status (STATUS REQUEST Screen) . . . 3-69
3.19. Transferring a File (TRANSFER Screen) . . . 3-72
3.19.1. Transferring a File or Element (within a Local Host) 3-80
3.19.2. Transferring a File or Element (Local to Remote) . 3-82
3.19.3. Transferring a File or Element (Remote to Local) . 3-83

3.19.4. Transferring a File or Element (between Remote Hosts) . . . 3-84
3.19.5. Including More Specific Information about a File Transfer . . . 3-86
3.19.6. File Transfer Guidelines . . . 3-90
Guidelines for All Types of Transfers . . . 3-90
Guidelines for Transfers between OS 2200 Hosts . . . 3-91
Guidelines for Transfers Involving Foreign Hosts 3-91
Acceptable Parameter Combinations . . . 3-92
3.19.7. Sample File Transfer Situations . . . 3-93

Section 4. Getting Started with the Command Interface

4.1. Starting and Ending . . . 4-1
4.1.1. Starting Up . . . 4-1
4.1.2. Ending . . . 4-2
4.2. Using the Command Interface . . . 4-3
4.2.1. Setting the Command Complete Message Function 4-3
Requesting Command Completion Messages . . 4-3
Suppressing Command Completion Messages . 4-3
4.2.2. Command Conventions . . . 4-3
4.2.3. Parts of a Command . . . 4-4
4.2.4. Entering a Command . . . 4-5
Using Keyword Syntax . . . 4-5
Using Positional Notation . . . 4-5
Using a Combination of Keywords and Positional Notation . . . 4-6
Using More Than One Line to Enter a Command 4-6
4.2.5. Transmitting a Command . . . 4-7
4.2.6. Command Processing . . . 4-7
4.2.7. Summary of Commands and Parameters . . . 4-7
4.3. Using On-Line Help for Commands . . . 4-10
4.3.1. Types of Help Available . . . 4-10
4.3.2. Accessing Command Help . . . 4-10
4.3.3. Accessing Parameter Help . . . 4-11
4.3.4. Accessing Error Message Help . . . 4-11

Section 5. Using the Command Interface

5.1. File Transfer Commands . . . 5-1

5.2. Reserving Storage on a Remote Host for the Transferred File (ALLOCATE Command) 5-2
5.3. Changing to the Parent Directory (CDUP Command) 5-4
5.4. Changing the Working Directory on a Remote Host (CWD Command) 5-6
5.5. Deleting a File (DEALLOCATE Command) 5-8
5.5.1. Deleting a File on a Local Host 5-10
5.5.2. Deleting a File on a Remote Host 5-11
5.6. Deregistering a Filename (DREGISTER Command) 5-12
5.6.1. Deregistering a Single Filename 5-13
5.6.2. Deregistering All Filenames 5-13
5.7. Getting a File during a Session (FGET command) . 5-15
5.8. Getting Help (FHELP Command) 5-16
5.8.1. Listing Available Functions on a Local Host 5-16
5.8.2. Listing Available Functions on a Remote Host 5-17
5.9. Sending a File During a Session (FPUT Command) 5-19
5.10. Registering a Filename (FREGISTER Command) .. 5-20
5.11. Transferring Information Requested by a Foreign Host (FSITE Command) 5-24
5.12. Getting File Registration Status (FSTATUS Command) 5-26
5.13. Beginning a Session (LOGIN Command) 5-28
5.14. Closing a Session (LOGOUT Command) 5-30
5.15. Creating a Directory on a Remote Host (MKD Command) 5-31
5.16. Printing the Current Directory on a Remote Host (PWD Command) 5-33
5.17. Removing a Directory on a Remote Host (RMD Command) 5-35
5.18. Renaming a File (RENAME Command) 5-37
5.19. Restarting a File Transfer (RESUME Command) ... 5-39
5.19.1. Restarting a File Transfer (within a Local Host) ... 5-40
5.19.2. Restarting a File Transfer (Local to Remote) 5-41
5.19.3. Restarting a File Transfer (Remote to Local) 5-42
5.19.4. Restarting a File Transfer (between Remote Hosts) 5-42
5.19.5. Specifying a Restart Point for a File Transfer Recovery 5-43
5.20. Transferring a File (TRANSFER Command) 5-46
5.20.1. Transferring a File or Element (within a Local Host) 5-55
5.20.2. Transferring a File or Element (Local to Remote) . 5-56
5.20.3. Transferring a File or Element (Remote to Local) . 5-56
5.20.4. Transferring a File or Element (between Remote Hosts) 5-57

5.20.5. Including More Specific Information about a File Transfer 5-58
5.20.6. File Transfer Guidelines 5-61
Guidelines for All Types of Transfers 5-61
Guidelines for Transfers between OS 2200 Hosts 5-61
Guidelines for Transfers Involving Foreign Hosts 5-62
Acceptable Parameter Combinations 5-63
5.20.7. Sample File Transfer Situations 5-63

Appendix A. TAS*FTPMSG Error Messages File

Bibliography

Figures

2-1. Sample Command Screen 2-3

3-1. ALLOCATE Screen 3-2
3-2. CHANGE TO PARENT DIRECTORY Screen 3-5
3-3. CHANGE WORKING DIRECTORY Screen 3-8
3-4. DEALLOCATE Screen 3-11
3-5. DREGISTER Screen 3-15
3-6. FHELP Screen 3-25
3-7. FSITE Screen 3-30
3-8. GET Screen 3-33
3-9. LOGIN Screen 3-35
3-10. MAKE DIRECTORY Screen 3-38
3-11. PRINT WORKING DIRECTORY Screen 3-41
3-12. PUT Screen 3-43
3-13. REGISTER Screen 3-49
3-14. REMOVE DIRECTORY Screen 3-55
3-15. RENAME Screen 3-58
3-16. RESUME Screen 3-61
3-17. STATUS REQUEST Screen 3-69
3-18. TRANSFER Screen 3-73

Tables

1-1. Overview of File Transfer Functions 1-5

2-1. Function Key Section Requests 2-4
2-2. Filling in Command Screen Fields 2-6

3-1. ALLOCATE Screen Fields 3-3
3-2. CHANGE TO PARENT DIRECTORY Screen Fields 3-6
3-3. CHANGE WORKING DIRECTORY Screen Fields 3-9
3-4. DEALLOCATE Screen Fields 3-12
3-5. DREGISTER Screen Fields 3-15
3-6. FHELP Screen Fields 3-26
3-7. FSITE Screen Fields 3-31
3-8. LOGIN Screen Fields 3-36
3-9. MAKE DIRECTORY Screen Fields 3-39
3-10. PRINT WORKING DIRECTORY Screen Fields 3-42
3-11. REGISTER Screen Fields 3-50
3-12. REMOVE DIRECTORY Screen Fields 3-56
3-13. RENAME Screen Fields 3-59
3-14. RESUME Screen Fields 3-62
3-15. STATUS REQUEST Screen Fields 3-69
3-16. TRANSFER Screen Fields 3-73
3-17. Guidelines for Using the Type, Translate, and Structure Fields 3-92
3-18. Sample File Transfer Situations 3-93

4-1. Command Conventions 4-4

5-1. ALLOCATE Command Keyword Parameter Descriptions 5-2
5-2. CDUP Command Keyword Parameter Descriptions 5-4
5-3. CWD Command Keyword Parameter Descriptions 5-6
5-4. DEALLOCATE Command Keyword Parameter Descriptions 5-9
5-5. DREGISTER Command Keyword Parameter Descriptions 5-12
5-6. FHELP Command Keyword Parameter Description 5-16
5-7. FREGISTER Command Keyword Parameter Descriptions 5-20
5-8. FSITE Command Keyword Parameter Descriptions 5-24
5-9. FSTATUS Command Keyword Parameter Descriptions 5-26
5-10. LOGIN Command Keyword Parameter Descriptions 5-28
5-11. MKD Command Keyword Parameter Descriptions 5-31
5-12. PWD Command Keyword Parameter Descriptions 5-33
5-13. Remove Directory Command Keyword Parameter Descriptions 5-35
5-14. RENAME Command Keyword Parameter Descriptions 5-37
5-15. RESUME Command Keyword Parameter Descriptions 5-39
5-16. TRANSFER Command Keyword Parameter Descriptions 5-47
5-17. Guidelines for Using the Type, Translate, and Structure Parameters 5-63

5-18. Sample File Transfer Situations 5-64

Examples

1-1. Accessing the TAS*FTPMSG Error Messages File 1-12

2-1. Clearing a Terminal Broadcast or Terminal Message 2-5
2-2. Accessing a Command Screen using a Command Code 2-8
2-3. Accessing a Command Screen Using the Cursor 2-8
2-4. Accessing a Command Screen from Another Command Screen 2-9
2-5. Accessing General Help from the Main Menu 2-10
2-6. Accessing Command Help 2-11
2-7. Command Help Screen 2-12
2-8. Accessing Field Help 2-13
2-9. Field Help Response 2-14
2-10. Accessing Error Message Help 2-15

3-1. Reserving Storage on a Remote Host for the Transferred File 3-4
3-2. Changing to the Parent Directory 3-7
3-3. Changing the Working Directory on a Remote Host 3-10
3-4. Deleting a File on a Local Host Using the DEALLOCATE Screen 3-13
3-5. Deleting a File on a Remote Host Using the DEALLOCATE Screen 3-14
3-6. Deregistering All FilenamesAssocaited with an Application-id 3-18
3-7. Listing Available Functions for a Local Host Using the FHELP Screen 3-27
3-8. Response to Listing Available Functions on a Local Host Using the FHELP Screen 3-27
3-9. Listing Available Functions on a Remote Host Using the FHELP Screen . . 3-28
3-10. Response to Listing Available Functions on a Remote Host Using the FHELP Screen 3-29
3-11. Transferring Information Using the FSITE Screen 3-32
3-12. Transferring a File Using the GET Screen 3-34
3-13. Opening a Session Using the LOGIN Screen 3-37
3-14. Creating a Directory 3-40
3-15. Displaying the Current Directory Name 3-42
3-16. Transferring a File Using the PUT Screen 3-44
3-17. Registering a Filename Using the REGISTER Screen 3-52
3-18. Registering a Filename with a Wildcard Character 3-53
3-19. Registering Using One-Time Registration and Save Status 3-54
3-20. Removing a Directory 3-57
3-21. Renaming a File Using the RENAME Screen 3-60
3-22. Restarting a File Transfer within a Local Host Using the RESUME Screen . 3-63
3-23. Restarting a File Transfer (Local-to-Remote) Using the RESUME Screen . . 3-64
3-24. Restarting a File Transfer from a Remote Host to a Local Host Using the RESUME Screen 3-65
3-25. Restarting a File Transfer between Remote Hosts Using the RESUME Screen 3-66

3-26. Sample Checkpoint File 3-68
3-27. Specifying a Restart Point Using the RESUME Command Screen 3-68
3-28. Using the STATUS REQUEST Screen 3-71
3-29. Transferring an Element (within the Local Host) Using the TRANSFER Screen 3-81
3-30. Transferring a File (Local to Remote) Using the TRANSFER Screen 3-83
3-31. Transferring an Element (Remote to Local) Using the TRANSFER Screen . 3-84
3-32. Transferring a File (between Remote Hosts) Using the TRANSFER Screen 3-86
3-33. Transferring an Omnibus Element within the Local Host Using the TRANSFER Screen 3-88
3-34. Transferring a Symbolic Element from a Remote Host to the Local Host Using the TRANSFER Screen 3-89
3-35. Transferring a File Containing EBCDIC Code from the Local Host to a Remote Host Using the TRANSFER Screen 3-89
3-36. Transferring a Local File to a Remote File as Sequential Records 3-90

4-1. Starting the Command Interface 4-1
4-2. Requesting the **END COMMAND Message 4-3
4-3. Suppressing the **END COMMAND Message 4-3
4-4. Sample File Transfer Command 4-5
4-5. Using Keyword Syntax to Enter a Command 4-5
4-6. Using Positional Notation to Enter a Command 4-6
4-7. Using Keywords and Positional Notation to Enter a Command 4-6
4-8. Using More Than One Line to Enter a Command 4-6
4-9. Accessing Help for a Command 4-10
4-10. Accessing Help for a Parameter 4-11
4-11. Accessing Help for an Error Message 4-12

5-1. Allocating a File on a Remote Foreign Host Using the ALLOCATE Command 5-3
5-2. Changing to the Parent Directory Using the CDUP Command 5-5
5-3. Changing the Current Working Directory Using the CWD Command 5-7
5-4. Deleting a File on a Local Host Using the DEALLOCATE Command 5-11
5-5. Deleting a File on a Remote Host Using the DEALLOCATE Command 5-11
5-6. Deregistering a Single File 5-13
5-7. Deregistering All Filenames 5-14
5-8. Listing Available Functions on a Local Host Using FHELP 5-17
5-9. Listing Available Functions on a Remote Host Using FHELP 5-18
5-10. Registering a Filename 5-22
5-11. Registering Multiple Filenames 5-23
5-12. Transferring Information Using the FSITE Command 5-25
5-13. Saved Status Request 5-27
5-14. Creating a Directory on a Remote Foreign Host Using the MKD Command 5-32
5-15. Printing the Name of the Current Directory Using the PWD Command . . . 5-34
5-16. Removing a Directory Using the RMD Command 5-36
5-17. Renaming a File Using the RENAME Command 5-38
5-18. Restarting a File Transfer within a Local Host Using the RESUME Command 5-41
5-19. Restarting a File Transfer from a Local to a Remote Host Using the RESUME Command 5-42
5-20. Restarting a File Transfer from a Remote to a Local Host Using the RESUME Command 5-42

5-21. Restarting a File Transfer between Remote Hosts Using the RESUME Command 5-43
5-22. Sample Checkpoint File 5-44
5-23. Specifying a Restart Point Using the RESUME Command 5-45
5-24. Transferring an Element (within the Local Host) Using the TRANSFER Command 5-56
5-25. Transferring a File (Local to Remote) Using the TRANSFER Command . . . 5-56
5-26. Transferring a File (Remote to Local) Using the TRANSFER Command . . . 5-57
5-27. Transferring an Element (between Remote Hosts) Using the TRANSFER Command 5-58
5-28. Transferring an Omnibus Element within the Local Host Using the TRANSFER Command 5-60
5-29. Transferring a Symbolic Element from a Remote Host to the Local Host Using the TRANSFER Command 5-60
5-30. Transferring a File Containing Ebcdic Code from the Local Host to a Remote Host Using the TRANSFER Command 5-60
5-31. Transferring a Local File to a Remote File as Sequential Records 5-60

About This Guide

This manual provides information about the Unisys file transfer facility designed for use in a TCP/IP network.

The Unisys networking product is called TAS (TCP/IP Application Services). The product name TAS replaces DDN 1100 (Defense Data Network). The term TAS gives a clearer picture of the services available, as the use of TCP/IP has expanded far beyond the Defense Data Network where it originated.

Purpose

The purpose of this guide is to provide information for using the following two file transfer user interfaces:

- Menu (the DPS 2200 menu interface)
- Command (the IPF 1100 command interface)

Scope

This guide contains step-by-step procedures and need-to-know information required by a user to transfer and delete files and to access on-line help for the file transfer facility.

Audience

The guide is written for programmers and system analysts. The secondary audience is site administration personnel.

Prerequisites

There are no prerequisites.

How to Use This Document

This guide is designed to be used as a reference by an individual who will be working at a terminal.

First, you should read Section 1 of this guide to gain a general understanding of the file transfer facility. This introductory section pertains to both the menu and command interfaces.

If you wish to use the menu interface, read Section 2 and Section 3.

To use the command interface, refer to Section 4 and Section 5.

Organization

Section 1. Introduction

Describes the file transfer facility functions. This section also provides guidelines for specifying host identifiers and file names.

This section pertains to using both the menu interface and command interface.

Section 2. Getting Started with the Menu Interface

Describes how to begin and end a menu interface session and how to access and use the file transfer screens. This section also provides instructions for getting on-line help for screens.

Section 3. Using the Menu Interface

Describes each file transfer screen, and provides detailed step-by-step procedures to perform the screen functions.

Section 4. Getting Started with the Command Interface

Describes how to begin and end a command interface session, and how to use the file transfer commands. This section also provides instructions to get on-line help for commands.

Section 5. Using the Command Interface

Describes each file transfer command format, and provides examples to perform the command functions.

Appendix A. TAS*FTPMSG Error Messages File

Provides a list of possible messages that can be written to the TAS*FTPMSG file on the local host, when the file transfer facility is invoked from a user on a remote host file.

This appendix serves as a reference for error messages appearing in the TAS*FTPMSG file.

Results

After reading this guide, you will:

- Have a general understanding of how the file transfer facility works
- Know how to get on-line help for the file transfer facility
- Know how to use the menu and command interface to transfer and delete files

Related Product Information

Note: *For all manuals, use the version that corresponds to the release level of the product software in use on your system.*

***OS 2200 TCP/IP Application Services (TAS) C Language Programming Guide* (4173 5135)**

Describes how to write C Language programs for program-callable file transfer applications.

***OS 2200 TCP/IP Application Services (TAS) COBOL Programming Guide* (3787 3205)**

Describes how to write COBOL programs for program-callable file transfer and mail transfer applications.

***OS 2200 TCP/IP Application Services (TAS) FORTRAN Programming Guide* (3787 3247)**

Describes how to write FORTRAN programs for program-callable file transfer applications and mail transfer applications.

***OS 2200 TCP/IP Application Services (TAS) Implementation and Administration Guide* (3787 3221)**

Describes the major features of this release and provides instructions for installing and verifying TAS.

***OS 2200 TCP/IP Application Services (TAS) Mail Processor User Guide* (3787 3239)**

Describes how to create, send, and receive messages with other hosts in a TCP/IP network. This guide provides instructions on how to use the DPS 2200 menu interface and the IPF 1100 command interface.

***OS 2200 Distributed Data Processing (DDP-PPC/DDP-FJT) Messages Reference Manual* (3787 3528)**

Lists and describes error message codes returned by DDP-PPC .

Notation Conventions

Table 4-1 explains the conventions we use to document the file transfer commands.

Section 1
Introduction

1.1. What Is TAS?

TAS (TCP/IP Application Services) is a software product that provides communication among hosts in:

- An X.25 Public Data Network (PDN)
- A Local Area Network (LAN)

1.1.1. Communication Protocol is TCP/IP

The communication protocol used by TAS is TCP/IP (Transmission Control Protocol/Internet Protocol), originally defined for the United States Department of Defense Data Network (DDN).

1.1.2. TAS Components

TAS consists of three components:

- The TAS Mail Processor

  Provides electronic mail processing capabilities, based on the *Simple Mail Transfer Protocol (Military Standard Simple Mail Processor Protocol, MIL-STD-1781)*. For complete information on the TAS Mail Processor, see the *TAS Mail Processor User Guide*.

- The TAS File Transfer Facility (the subject of this manual)

  Provides the ability to transfer and manage files within a host and between hosts. It is based on the *File Transfer Protocol (Military Standard File Transfer Protocol, MIL-STD-1780)*.

- The TAS programming interfaces

  Provides facilities for writing applications programs that:

  - Invoke the TAS File Transfer Facility or Mail Processor (COBOL and FORTRAN)
  - Invoke the File Transfer Facility only (C Language)

  For complete information about TAS COBOL, see the *TAS COBOL Programming Guide*. For information about TAS FORTRAN, see the *TAS FORTRAN Programming Guide*. For information about C Language programming, see the *TAS C Language Programming Guide*.

1.1.3. Homogeneous/Heterogeneous

File transfers can be either:

- Homogeneous (OS 2200 host to OS 2200 host)
- Heterogeneous (OS 2200 host to non-OS 2200 host)

1.1.4. Local/Remote/Foreign Hosts

When two or more computer systems are linked together in a TCP/IP network, each system is known as a host.

The system to which your terminal is connected is called the local host (this must be an OS 2200 host).

All other hosts in the network are known as remote hosts (OS 2200 or non-OS 2200).

Any remote host that is not an OS 2200 is called a foreign host.

1.2. What Is the File Transfer Facility?

The file transfer facility provides the ability to move files on the same system and between systems in a TCP/IP network. The TCP/IP protocol for file transfer processing is called the File Transfer Protocol (FTP).

Unisys software is based on the FTP standard. It allows an OS 2200 host in a TCP/IP network to communicate in either a homogeneous or a heterogeneous environment.

1.2.1. Types of File Transfers

You can process a file on:

- The same host to which you are attached (local host)
- A different OS 2200 host in your network (remote host)

You **can** transfer a file:

- Within a local host
- From the local host to a remote host
- From a remote host to the local host
- Between remote OS 2200 hosts

You **cannot** transfer a file:

- Within a foreign host
- Between two remote foreign hosts
- Between a remote OS 2200 host and a remote foreign host

You can also request notification of a successful file transfer to an OS 2200 host.

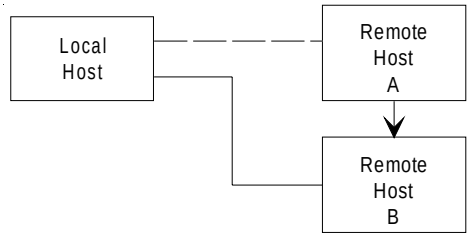
The following examples show ways to use the file transfer facility and the various directions in which you can transfer a file.

- You want to create a copy of a program file on the local host that you can use to modify and test.

- You create a file on the local host and want to store it on a remote host that has more mass storage. You transfer the file from the local to the remote host.

- You want to execute programs on the local host that currently reside on a remote host. You transfer the program file from the remote to the local host.

- You need to run some reports on a remote host. The data file you need to run the reports resides on another remote host. Transfer the data file between the remote hosts. (Note that these remote hosts must be OS 2200 hosts.)



1.2.2. Types of Files and Elements

Using the file transfer facility, you can transfer:

- Complete files of these types:
  - OS 2200 System Data Format (SDF)
  - OS 2200 program
- Partial files of these types:
  - Symbolic
  - Omnibus

For additional information, refer to Table 3-11 and Table 5-10.

1.2.3. File Transfer User Interfaces

You can use any of the following interfaces to access and use the file transfer facility:

- Menus — Display Processing System (DPS 2200) menu interface
- Commands — Interactive Processing Facility (IPF 1100) command interface
- Programs — Programming interfaces (COBOL, FORTRAN, C Language)

The menu (DPS) and command (IPF) interfaces are described in this manual. Each of the programming languages is discussed in its own document.

1.2.4. Overview of File Transfer Functions

Table 1-1 describes the file transfer functions.

Table 1-1. Overview of File Transfer Functions

Command Screen/Command	Description
ALLOCATE	Allocates storage space on a remote foreign host for the file you want to transfer.
CHANGE TO PARENT DIRECTORY/CDUP	Changes the active directory on a remote foreign host to the parent of the current working directory.
CLOSE/LOGOUT There is no command screen for CLOSE. Instead, CLOSE (cl) is entered on the command line or selected from the MAIN MENU.	Ends a session with a remote host.
CHANGE WORK DIRECTORY/CWD	Changes the active directory on a remote foreign host for file storage or file retrieval.
DEALLOCATE	Deletes a file on: • Your local host • A remote host
DREGISTER	Deregisters a file for event notification.
FHELP	Lists available file transfer functions implemented on: • Your local host • A remote host
FSITE	Transfers information not included in the FTP protocol commands.
GET/FGET	Transfers a file to the local host during a session with a remote host.
LOGIN	Establishes a session with a remote host.
MAKE DIRECTORY/ MKD	Makes a new directory on a remote foreign host using the name, "pathname."
PRINT WORKING DIRECTORY/PWD	Displays on your terminal the name of the current working directory on a remote foreign host.

continued

Table 1-1. Overview of File Transfer Functions (cont.)

Command Screen/Command	Description
PUT/FPUT	Transfers a file to a remote host during a session.
REGISTER/FREGISTER	Registers a file for event notification.
REMOVE DIRECTORY/ RMD	Deletes a directory on a remote foreign host.
RENAME	Renames a file located on a remote foreign host.
RESUME	Uses previously defined checkpoint files to restart an abnormally terminated file transfer: • Within your local host • From your local to a remote host • From a remote to your local host • Between remote hosts
STATUS REQUEST/FSTATUS	Obtains file transfer status for files with event notification set.
TRANSFER	Transfers a copy of a file: • Within your local host • From your local to a remote host • From a remote to your local host • Between remote OS 2200 hosts

1.3. What Do I Need to Know to Use File Transfer?

To use the file transfer facility you need to understand how:

- File and file elements are named
- Hosts are identified
- Sessions are established
- Error messages are produced and stored
- Checkpoint files are used to restart file transfers

1.3.1. Specifying File and Element Names

You must follow certain rules when specifying files and elements for a file transfer. Rules exist for both OS 2200 names and non-OS 2200 names.

OS 2200 Hosts

When you transfer a file within a local host or between two OS 2200 hosts, your options are:

If You Want to ...	Then ...
If you want to ...	**Then ...**
Transfer an entire file...	Specify the file name.
Transfer part of a file...	Specify the file name and an element name.

These file characteristics must be considered:

File Characteristics	Sending File	Receiving File
Must be an existing file?	Yes	No
Must follow OS 2200 file naming conventions?	Yes	Yes
Can include cycle numbers, read/ write keys, and version numbers?	Yes	Yes
Must match the file naming style of the file on the opposite system; that is, whether or not an element name should be included?	Yes	Yes If a receiving file exists in a different format, remove it using DEALLOCATE and the file can then be transferred.

For a complete description of OS 2200 file-naming conventions, see the *Executive System Software Executive Control Language (ECL) End Use and Programming Reference Manual* .

OS 2200 and Non-OS 2200 Hosts

For file transfers between OS 2200 and non-OS 2200 hosts, follow the file-naming conventions appropriate for each host.

For example, if the sending file is on an OS 2200 host and the receiving file is on a non-OS 2200 host:

- Specify the sending file name according to OS 2200 conventions
- Specify the receiving file name according to the conventions of the receiving host

There are some file transfer commands that are not supported by Unisys as a server. If these commands are received from a non-OS 2200 host, they are refused. These commands are:

ALLO	NLST	RNTO
CDUP	NOOP	SITE
CWD	PWD	SMNT
LIST	REIN	STAT
MKD	RMD	STOU
	RNFR	SYST

1.3.2. Specifying Host Identifiers

Each host in a network has its own host identifier (host-id).

You use host-ids when you perform the file transfer functions. You must follow certain guidelines when you specify a host-id.

Two formats are available to specify a host-id:

- Internet physical address — always valid
- Logical host name — valid only if implemented by your site administrator

Using the Internet Physical Address Format

Use the following format to specify a host-id using the internet physical address format:

```
n1-n2-n3-n4
```

Include the dashes.

Variable	Values
n1	ranges from 0-233
n2	ranges from 0-255
n3	ranges from 0-255
n4	ranges from 0-255

The following is an example of a host-id using the internet physical address format:

```
4-3-0-1
```

Using the Logical Host Name Format

Systems using logical host names must follow the following format rules for names. These names:

- Can be up to 255 characters, 24 on transfer
- Can include alphanumerics as well as the minus sign (-).
- Are not case sensitive (for example, HOSTABC and HOSTabc are identical)

The following example shows how to specify a host-id using the logical host name format.

```
SD-01
```

When You Should Not Specify a Local Host-id

When you transfer a file, you should omit the host-id for a local host. If you specify a local host-id in a file transfer between an OS 2200 host and a foreign host you may receive an error message.

Note: *The file transfer facility uses the local host-id as the default.*

When You Should Specify a Remote Host-id

Note the following conditions which explain when to specify a host-id:

- When you transfer a file using the TRANSFER command, you should specify a host-id
- If you have executed a command that leaves the session open, and you want to:
  - Continue working in the session currently open, do not specify a host-id
  - Close the current session, or open a new one, specify a host-id

See the next subsection, "Methods of Transferring Files," for more information about sessions.

1.3.3. Methods of Transferring Files

There are two ways that you can transfer files with FTP:

- Using the TRANSFER command
- Establishing a session with the LOGIN command and then issuing GET (FGET) or PUT (FPUT) commands.

Transferring Files using the TRANSFER Command

The TRANSFER command allows you to transfer files:

- Between files on the local host
- From the local host to a remote host
- From a remote host to the local host
- Between remote OS 2200 hosts

Except for transfers between files on the local host, you always provide a remote host-id on the TRANSFER command.

When you issue a TRANSFER command, the following steps take place:

1. If a session is currently open, it is closed.
2. A new session is established.
3. The transfer takes place.
4. The session is closed.

At the completion of the TRANSFER command, there is no open session.

Transferring Files using GET and PUT Commands

The LOGIN command establishes a session with a remote host. While the session is open, you can issue:

- GET commands to transfer files from a remote host to the local host
- PUT commands to transfer files from the local host to a remote host

You do not provide a remote host-id on the GET or PUT command.

The session remains open until you issue a CLOSE or LOGOUT command or until you open another session.

Using Other FTP Commands in an Open Session

Once a session is established with a remote host, you can issue a number of FTP commands in addition to GET and PUT.

The following commands can be used in an open FTP session:

- ALLOCATE
- CHANGE TO PARENT DIRECTORY (CDUP)
- CHANGE WORK DIRECTORY (CWD)
- DEALLOCATE
- FHELP
- FSITE
- MAKE DIRECTORY (MKD)
- PRINT WORKING DIRECTORY (PWD)
- REMOVE DIRECTORY (RMD)
- RENAME

These commands do not require a remote host-id if a session is in progress.

If a session is not already established, you can open a session without a LOGIN command by providing a remote host-id with the command. With the exception of the FHELP command, the session remains open after the command is executed.

If a session is in progress and you supply a remote host-id, the current session is closed and a new session is opened to the host you specify, even if it is the same host.

Note: *Closing the current open session and opening a new session involves a large amount of overhead processing. This overhead is incurred even when you specify the same host as in the current session.*

1.3.4. Error Messages

TAS provides error messages when file transfer problems are encountered. Each message contains:

- A description of the problem
- A recommended corrective action

Error messages are handled in three different ways:

- Displayed on-line

  Occurs when you invoke the file transfer facility on your local host using the menu or command interface.

  For information about getting on-line help for error messages, see 2.3 and 4.3.

- Stored in a file on your host called TAS*FTPMSG

  Occurs when a user on a remote host invokes the file transfer facility on your local host.

  Each message in the TAS*FTPMSG file has a time and date stamp. To read the error messages file, a site administrator can use an OS 2200 editor (for example, @ED,R). To print this file, use an @SYM,U executive control language statement.

- Stored in the DDP-PPC log file

  See the DDP-PPC Implementation and Aministration Guide for information on processing this file.

Example 1-1 illustrates how to access the TAS*FTPMSG error messages file. This example shows two error messages, FTP 320 and FTP 410. The bolded areas show entries you make.

```
@ED,R TAS*FTPMSG.
►READ-ONLY MODE
emsp;►ED 16RID SAT-08/30/97-10:13:40-(0,)
►EDIT
►0:
►p 100
►  97/08/30    15:44:56
►FTP monitor is now active
►  97/08/30    00:08:57
►FTP320 File Transfer Process worker activity received an abort
►indication from the remote host.  The conversation has been aborted.
►  97/08/30    14:25:55
►FTP410 There is currently not enough memory for FTP to execute
►the current command.  Please try again later.
►EOF:19
►0:
►exit
►END ED.  NO CORRECTIONS APPLIED
```

Example 1-1. Accessing the TAS*FTPMSG Error Messages File

See Appendix A for a list of possible TAS*FTPMSG error messages.

Note: *For information about recovering from fatal errors, see the* TAS Implementation and Administration Guide.

1.3.5. Checkpointing

Checkpointing inserts markers in a file so that an interrupted transfer can be restarted from the marker rather than from the beginning.

Checkpointing involves two processes:

- Passing checkpoint markers between the hosts involved in the file transfer
- Recording these markers (in the checkpoint file on the local host)

The location of the file to be transferred and the initiation point of the transfer determine which host will control the checkpoint options. The guidelines are:

Checkpoint Options	Determined by TASMASTER on host where file resides	Determined by initiating host
Whether checkpoint markers are passed	X	
The frequency with which checkpoint markers are passed	X	
Whether checkpoint markers are recorded in a checkpoint file (by specifying or not specifying this option)		X

Note: *For more information on TASMASTER, refer to the* TAS Implementation and Administration Guide.

According to file transfer protocol (FTP), implementation of the checkpoint function is optional. The TAS file transfer facility supports checkpointing. However, other non-OS 2200 hosts might not.

Checkpointing is a valuable tool, but it does slightly increase the time required to transfer a file. For this reason, you should use it with discretion. It is recommended for transfers of large files, as they are costly to restart from the beginning.

Contents of Checkpoint File

A checkpoint file contains:

- A description of the file transfer information you specify; this information appears once in the checkpoint file.
- Checkpoint markers (checkpoint-ids); these markers appear multiple times in the checkpoint file.

For information about how to specify checkpointing information to the file transfer facility when you initiate a file transfer, see 3.19and 5.20.

Results of an Unsuccessful File Transfer

When you use a checkpoint file to restart a file transfer, checkpointing is still in effect. The file transfer facility continues to write checkpoint markers to the same checkpoint file.

Results of a Successful File Transfer

After a successful file transfer for which checkpointing was requested, the contents of the checkpoint file are no longer useful. The action that the file transfer facility takes with the checkpoint file depends on how it was allocated.

If ...	Then ...
You allocate (catalog) the checkpoint file before initiating the file transfer	The file transfer facility records an indication in the checkpoint file that the file transfer was successfully completed, and frees it.
The checkpoint file does not exist when the transfer is initiated	The file transfer facility allocates it, and then deletes it upon successful completion of the transfer.

Section 2
Getting Started with the Menu Interface

2.1. Starting and Ending a Menu Interface Session

Obtain the following information before you begin your first session:

- Format type for specifying host-ids. (See Section 1.)
- Log-on procedure in use at your site
- Sign-off procedure in use at your site

2.1.1. Starting File Transfer

To begin file transfer:

1. Log on to the local host using your site-specific procedure.
2. Type @FTP.
3. Transmit the command.

When you start your session, the file transfer facility displays the MAIN MENU:

```
FTP 6R1              FILE TRANSFER PROTOCOL          97/08/30
                           MAIN MENU

     F1-Help  < >         F2-Refresh  < >         F3-Exit  < >


   Move the cursor to the desired command and transmit, or Type
       the desired command code and transmit :  ___


                                    File Transfer
                                  -------------------
< >  tr  Transfer      < > lo  Login          < > al Allocate
< >  re  Resume        < > ge  Get            < > cp Change to Parent
< >  de  Deallocate    < > pu  Put            < > cd Change Work Dir
< >  rn  Rename        < > cl  Close          < > md Make Dir
< >  fs  Fsite         < > rf  Register       < > pw Print Work Dir
< >  fh  Fhelp         < > dr  De-register    < > rd Remove Dir
< >  sr  Status Request
```

From the MAIN MENU, you can:

- Access any file transfer command screen
- Access a series of help screens describing the file transfer functions

- Close a session between two hosts

2.1.2. Starting and Ending a Session

A session between two hosts is an open connection. Files can be transferred back and forth across this connection. Sessions are opened by using the LOGIN screen or by entering a remote host-id on certain FTP commands.

For more information about sessions, see "Methods of Transferring Files" in 1.3.

To close a session, enter **cl** on the command line of any command screen or select the close option from the MAIN MENU. There is no CLOSE command screen.

2.1.3. Exiting File Transfer

To end the file transfer program:

1. Display either:
   - The MAIN MENU
   - Any command screen
2. You can either:
   - Press the F3 function key
   - Move the cursor to F3-Exit < >, and transmit

If you end the file transfer program while a session is open, the session is closed before the file transfer program ends.

2.2. Using the Menu Interface

2.2.1. Sections of a Command Screen

A command screen has four sections (Figure 2-1):

- Header section
- Function key section
- Command section
- Message section

```
FTP 6R1                          TRANSFER                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Source Host:      _____________________      *Source File Name:
_____________________________________________________________________________
Destination Host: _____________________      *Destination File Name:
_____________________________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _  Ascii _  Ebcdic _  L36 _
Mode: STREAM  Block _  Compressed _                Position: REPLACE _  Add _
Structure: FILE _  Record _                        Checkpoint mark: _____
Checkpoint file name: ____________________________________________

                Userid          Password      Level   Account     Project
1 (Source) : {__________}   {________________}  __  __________  __________
2 (Dest)   : {__________}   {________________}  __  __________  __________
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >
```

Figure 2-1. Sample Command Screen

Using the Header Section

The header section displays the:

- Product name and release number
- Name of the command
- Current date in YY/MM/DD format

Using the Function Key Section

You make general requests, such as Help and Refresh, from the function key section.To issue a request, either:

- Press the appropriate function key.
- Move the cursor between the angle brackets following the desired function and transmit.

Table 2-1 summarizes the requests available in the function key section.

Table 2-1. Function Key Section Requests

Function Key	Transmit Position	Function
F1	Help < >	Displays help information for the current screen.
F2	Refresh < >	Redisplays the screen from the point of the last transmit. When you enter data in a screen and press F2 before you transmit, the screen is redisplayed blank. When you enter data and press F2 after a transmit, the screen is redisplayed with the data you entered.
F3	Exit < >	Ends the current FTP session.
F4	Main Menu < >	Displays the FTP MAIN MENU.
	Command _< >	Displays the command screen you specify. To select this function, type the two-letter command code and transmit.

Note: *You can use the F2 function key or Refresh field to clear a terminal message or terminal broadcast you receive during a file transfer session.*

Example 2-1 shows how to use the Refresh field to clear a broadcast message from a TRANSFER screen you were using to enter data.

```
FTP 6R1                          TRANSFER                          97/08/30

 F1-Help < >  F2-Refresh <▒>  F3-Exit < >  F4-Main Menu < >    Command __ < >

Source Host:      _____________________       *Source File Name:
_____________________________________________________________________________
Destination Host: _____________________       *Destination File Name:
_____________________________________________________________________________

Type: ALL ****** ATTENTION ****** THE COMPUTER WILL BE SHUT DOWN AT  12:00 P.M.
Translate: Transparent _  Ascii _  Ebcdic _  L36 _
Mode: STREAM   Block _  Compressed _              Position: REPLACE _  Add _
Structure: FILE _  Record _                       Checkpoint mark: _____
Checkpoint file name: ____________________________________________________
                Userid          Password      Level    Account     Project
1 (Source) : {__________}   {________________}   __   __________  __________
2 (Dest)   : {__________}   {________________}   __   __________  __________
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >
```

Example 2-1. Clearing a Terminal Broadcast or Terminal Message

When you transmit, the file transfer facility displays a blank TRANSFER command screen for you to fill in.

Using the Command Section

Enter the information you need to describe a file transfer command in the command section.

Types of Fields

The command section contains three types of fields:

- Input fields

  The input fields supply a field name and a blank line in which you enter the corresponding information.

  Example: Source Host: _____

- Choice fields

  Choice fields provide options from which you can choose information such as file types, data types, modes, and structures.

  Example: Structure: FILE __ Record __

- The Accept Data field

  This field processes a command screen.Example: Accept Data <▒>

Entering Information

How you enter information on a screen depends on the type of field you want to complete.Table 2-2 shows how to complete the different types of command screen fields.

Table 2-2. Filling in Command Screen Fields

To enter information in:	Perform this action:
An input field	Enter information on the blank line.
A choice field	Enter any alphanumeric, such as "X", to the right of your choice. Default values are displayed in upper-case. If you make no selection, the default is assumed.
The Accept Data field	Place the cursor between the angle brackets and transmit.

Note: *If you decide to start over after entering some field values, re-enter the id of the command screen on the command line to display a blank screen.*

Required Fields

Required fields begin with an asterisk (*). For example:

```
*Destination File Name:_________________________
```

You must complete required fields to process a screen. If you transmit a screen before completing a required field:

- The file transfer facility does not process the screen
- A message appears in the message section
- The cursor moves into the first position of the incomplete field

File Name Fields

When you enter information in a file name field, you must enter the actual name of the file name or file and element name.

Security Fields

Security fields are enclosed in braces. For example:

```
  Password
{___________}
```

When you enter information in a security field, FTP does not display the information on the screen for security purposes.

Using the Message Section

The message section:

- Displays messages from the file transfer facility
- Displays on-line help information which you request for fields in the command section

When you transmit a command, the file transfer facility displays:

- An appropriate completion message
- An information message
- An error message

2.2.2. Accessing Command Screens

You can access command screens from:

- The MAIN MENU
- Another command screen

Accessing a Command Screen from the MAIN MENU

To access a command screen from the MAIN MENU, either:

- Enter a two-letter command code at the prompt and transmit.
- Move the cursor between the angle brackets before the command you want to access, and transmit.

Example 2-2 shows how to access the TRANSFER command screen by entering the two-letter command code, tr, on the MAIN MENU.

```
FTP 6R1              FILE TRANSFER PROTOCOL          97/08/30
                            MAIN MENU

     F1-Help  < >         F2-Refresh  < >         F3-Exit  < >


   Move the cursor to the desired command and transmit, or Type
       the desired command code and transmit :  tr


                              File Transfer
                            -------------------
< >  tr  Transfer      < > lo  Login          < > al Allocate
< >  re  Resume        < > ge  Get            < > cp Change to Parent
< >  de  Deallocate    < > pu  Put            < > cd Change Work Dir
< >  rn  Rename        < > cl  Close          < > md Make Dir
< >  fs  Fsite         < > rf  Register       < > pw Print Work Dir
< >  fh  Fhelp         < > dr  De-register    < > rd Remove Dir
< >  sr  Status Request
```

Example 2-2. Accessing a Command Screen using a Command Code

Example 2-3 shows how to access the FHELP command screen by positioning the cursor on the MAIN MENU.

```
FTP 6R1              FILE TRANSFER PROTOCOL          97/08/30
                            MAIN MENU

     F1-Help  < >         F2-Refresh  < >         F3-Exit  < >


   Move the cursor to the desired command and transmit, or Type
       the desired command code and transmit :  ___


                              File Transfer
                            -------------------
<>  tr  Transfer      < > lo  Login          < > al Allocate
< >  re  Resume        < > ge  Get            < > cp Change to Parent
< >  de  Deallocate    < > pu  Put            < > cd Change Work Dir
< >  rn  Rename        < > cl  Close          < > md Make Dir
< >  fs  Fsite         < > rf  Register       < > pw Print Work Dir
<▒>  fh  Fhelp         < > dr  De-register    < > rd Remove Dir
< >  sr  Status Request
```

Example 2-3. Accessing a Command Screen Using the Cursor

Accessing a Command Screen from Another Command Screen

Each command screen header includes the following field:

```
Command ___ < >
```

To access a command screen from the current command screen:

1. Move the cursor to the underlined ara in the Command __ < > field of the current screen.
2. Enter the two-letter command code in front of the angle brackets in the space provided.
3. Transmit the screen.

Example 2-4 shows how to access the DEALLOCATE screen from the TRANSFER screen Command ___ < > field.

```
FTP 6R1                          TRANSFER                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command DE <▒>

 Source Host:       _____________________        *Source File Name:

 ____________________________________________________________________________
```

Example 2-4. Accessing a Command Screen from Another Command Screen

When you transmit this screen, the file transfer facility displays the DEALLOCATE screen.

2.2.3. Transmitting a Command Screen

You must transmit a command screen to process a command.You can transmit from any position within the command section of the command screen. However, the command is processed more efficiently if you transmit from the Accept Data < > field.

> **Caution**
>
> If you transmit from the function key section, the desired function is executed and information entered in the command section is ignored.

2.3. Using On-Line Help for Screens

2.3.1. Types of Help Available

Five types of on-line help are available:

- General help—describes the file transfer facility and how to operate it
- Screen help—describes the purpose of a command and how to execute it
- Field help—describes an individual field on the current command screen
- Error message help—provides an explanation for a message you receive
- FHELP—provides a list of available functions implemented on a specified host

For more information on FHELP, see 3.7.

2.3.2. Accessing General Help

To access general help, either:

- Press the F1 function key on the MAIN MENU.
- Move the cursor to the F1-Help < > field at the top of the MAIN MENU and transmit.

Example 2-5 shows how to access general help from the MAIN MENU.

```
FTP 6R1              FILE TRANSFER PROTOCOL          97/08/30
                            MAIN MENU

     F1-Help  <▒>         F2-Refresh  < >         F3-Exit  < >


   Move the cursor to the desired command and transmit, or Type
       the desired command code and transmit :  ___


                              File Transfer
                            -------------------
< >  tr  Transfer      < > lo  Login          < > al Allocate
< >  re  Resume        < > ge  Get            < > cp Change to Parent
< >  de  Deallocate    < > pu  Put            < > cd Change Work Dir
< >  rn  Rename        < > cl  Close          < > md Make Dir
< >  fs  Fsite         < > rf  Register       < > pw Print Work Dir
< >  fh  Fhelp         < > dr  De-register    < > rd Remove Dir
< >  sr  Status Request
```

Example 2-5. Accessing General Help from the Main Menu

When you transmit, a general help menu is displayed, from which you can access:

- An overview of the file transfer facility
- Help with filling in command screens
- Help with using function keys

2.3.3. Accessing Command Screen Help

To access command help for the command screen currently displayed, either:

- Press the F1 function key.
- Move the cursor to the F1- Help < > field at the top of the screen and transmit.

Example 2-6 shows how to access command help for the TRANSFER command screen.

```
FTP 6R1                          TRANSFER                          97/08/30

 F1-Help <▒>  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Source Host:      _____________________      *Source File Name:
_____________________________________________________________________________
Destination Host: _____________________      *Destination File Name:
_____________________________________________________________________________

Type: SYM _  All _   Omn _   Sdf _   Iow _             Max Record Size: _____
Translate: Transparent _  Ascii _   Ebcdic _  L36 _
Mode: STREAM _   Block _  Compressed _                  Position: REPLACE _  Add _
Structure: FILE _   Record _                            Checkpoint mark: _____
Checkpoint file name: _____________________________________________

                 Userid            Password      Level    Account     Project
1 (Source) : {___________}   {________________}   __   __________  __________
2 (Dest)   : {___________}   {________________}   __   __________  __________
Siteinfo: _____________________________________________________________________
_____________________________________________________Accept Data < >
```

Example 2-6. Accessing Command Help

After you transmit, the screen is redisplayed with a help message at the bottom.

Example 2-7 shows the first part of the on-line help available for the TRANSFER command screen.

```
FTP 6R1                          TRANSFER                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Source Host:      _____________________      *Source File Name:
_____________________________________________________________________________
Destination Host: _____________________      *Destination File Name:
_____________________________________________________________________________
Type: SYM _  All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic _  L36 _
Mode: STREAM _  Block _ Compressed _               Position: REPLACE _  Add _
Structure: FILE _  Record _                        Checkpoint mark: _____
Checkpoint file name: ____________________________________________

                Userid           Password      Level    Account     Project
1 (Source) : {___________}   {_______________}   __   __________  __________
2 (Dest)   : {___________}   {_______________}   __   __________  __________
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >
The TRANSFER command provides you with the capability to :
    * store a file or element on a remote host
    * retrieve a file or element from a remote host
    * transfer a file or element between two remote hosts

                                                              F10-MORE <▒>
```

Example 2-7. Command Help Screen

Note that the last line on the screen displays the following field:

```
F10-MORE < >
```

This field indicates that there is more help available through additional messages. Continue to transmit the screen from this position or use the F10 function key to display the additional messages. When you reach the end of the message series, you receive the following message:

```
This is the end of the message series.  Transmit to repeat the series.
```

2.3.4. Accessing Field Help

To access field help:

1. Move the cursor to the first space of the field for which you want help.
2. Enter a question mark (?).
3. Transmit the screen.

Example 2-8 shows how to get help for the Checkpoint mark field on the TRANSFER screen.

```
FTP 6R1                          TRANSFER                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Source Host:      _____________________      *Source File Name:
_____________________________________________________________________________
Destination Host: _____________________      *Destination File Name:
_____________________________________________________________________________

Type: SYM _ All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic _  L36 _
Mode: STREAM   Block _ Compressed _              Position: REPLACE _  Add _
Structure: FILE _  Record _                      Checkpoint mark: ?____
Checkpoint file name: _____________________________________________

                 Userid           Password      Level   Account     Project
1 (Source) : {___________}   {_______________}   __   __________  __________
2 (Dest)   : {___________}   {_______________}   __   __________  __________
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >
```

Example 2-8. Accessing Field Help

When you transmit, the file transfer facility displays an explanation of the field at the bottom of the screen.

Example 2-9 shows the help available for the Checkpoint mark field on the TRANSFER screen.

```
FTP 6R1                          TRANSFER                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Source Host:      _____________________      *Source File Name:
_____________________________________________________________________________
Destination Host: _____________________      *Destination File Name:
_____________________________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic _  L36 _
Mode: STREAM  Block _ Compressed _                 Position: REPLACE _  Add _
Structure: FILE _  Record _                        Checkpoint mark: _____
Checkpoint file name: _____________________________________________

               Userid           Password      Level    Account     Project
1 (Source) : {___________}   {_____________}   __   __________  __________
2 (Dest)   : {___________}   {_____________}   __   __________  __________
Siteinfo: _____________________________________________________________
_____________________________________________________________Accept Data < >
The parameter CHECKPOINT MARK specifies the number of tracks to be
transferred before a checkpoint marker will be written.  This parameter is an
integer value.  This parameter is optional and can only be used when MODE =
BLOCK or MODE = COMPRESSED.  The default value is 250.
```

Example 2-9. Field Help Response

After you transmit to request field help, the question mark (?) disappears from the field. The message remains at the bottom of the screen, and you can continue to enter data in the fields.

2.3.5. Accessing Error Message Help

When you encounter an error, the file transfer facility displays an error message at the bottom of the current screen.

If more information is available about the error message, the file transfer facility displays the following field at the bottom of the screen:

```
F10-MORE < >
```

This field indicates that there is more help available through additional messages. Continue to transmit the screen from this position, to display the additional messages.

Example 2-10 shows how to display additional help for an error message.

```
FTP 6R1                          TRANSFER                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Source Host:      _____________________      *Source File Name:
_____________________________________________________________________________
Destination Host: _____________________      *Destination File Name:
_____________________________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic _  L36 _
Mode: STREAM   Block _ Compressed _                Position: REPLACE _  Add _
Structure: FILE _  Record _                        Checkpoint mark: _____
Checkpoint file name: _____________________________________________

                 Userid           Password      Level    Account     Project
1 (Source) : {___________}   {_______________}   __   __________  __________
2 (Dest)   : {___________}   {_______________}   __   __________  __________
Siteinfo: _____________________________________________________________________
_____________________________________________________Accept Data < >
FTP5040 Too many choices selected for TYPE.
        Please correct and re-transmit.
                                                          F10-MORE <▒>
```

Example 2-10. Accessing Error Message Help

The file transfer facility displays the next part of the message. At the end of the message series, you receive the following message:

```
This is the end of the message series.  Transmit to repeat the series.
```

The message remains at the bottom of the screen; however, you can continue to enter data.

Section 3
Using the Menu Interface

3.1. File Transfer Command Screens

The following command screens are described in this section in alphabetical order:

- ALLOCATE
- CHANGE TO PARENT DIRECTORY
- CHANGE WORKING DIRECTORY
- DEALLOCATE
- DREGISTER
- FHELP
- FSITE
- GET
- LOGIN
- MAKE DIRECTORY
- PRINT WORKING DIRECTORY
- PUT
- REGISTER
- REMOVE DIRECTORY
- RENAME
- RESUME
- STATUS REQUEST
- TRANSFER

There is no screen for the CLOSE command. Instead, you can select close from the Main Menu or enter **cl** on the command line of any screen. The close command ends a session between two hosts.

If you need help displaying a command screen, see 2.2.

3.2. Reserving Storage on a Remote Host for the Transferred File (ALLOCATE Screen)

Function

Use the ALLOCATE screen to reserve file storage space on a remote foreign host, if required by that host.

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Note: *If a remote host does not implement the ALLOCATE command, the host still returns a successful status message even though the command has not been processed.*

Screen

Figure 3-1 shows the ALLOCATE command screen.

```
FTP 6R1                    ALLOCATE                          97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host : ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________

*Bytes  : _______________

Records  : __________

          Userid                  Password                  Account
        {___________}           {__________________}      {___________}
                                                          Accept Data  < >
```

Figure 3-1. ALLOCATE Screen

Screen Field Descriptions

Table 3-1 describes the fields in the ALLOCATE screen.

Table 3-1. ALLOCATE Screen Fields

Field	Description
Host	The identifier of the remote host where you want to reserve storage. Use 1 to 255 alphanumeric characters. For more information about specifying host-ids, see Section 1.
Bytes	The number of bytes of storage you want to reserve for the file. Size requirements are defined by the remote host. This field is required.
Records	The number of records of storage you want to reserve for the file, as required by the remote host. You must specify a value for the Bytes field, even when you specify a value for the Records field. Size requirements are defined by the remote host.
Userid	Specifies a userid to access the file on the remote host, if required. Use 1 to 12 alphanumeric characters.
Password	The password required to access the directory on the remote host. This parameter may be optional depending on the requirements of the remote host. Use 1 to 18 alphanumeric characters.
Account	The number required to access the directory on the remote host, if required. Use 1 to 12 alphanumeric characters.

Procedure

To reserve storage to accommodate a transferred file on a remote host:

1. Display the ALLOCATE screen from the MAIN MENU or from any other command screen.
2. If a session is not already active with the remote host where you want to reserve storage, enter the name of the remote host in the Host field.
3. Enter the number of bytes of storage the file requires in the *Bytes field.
4. If required, enter the number of records of storage you require in the Records field.
5. Specify your userid, password, and account number in their respective fields if required by the remote host.
6. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-1 for additional information about field values.

Example

Example 3-1 shows how to open a session with a remote host and reserve file storage space.

```
FTP 6R1                    ALLOCATE                          97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host : KP-01_____________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________
*Bytes  : 7168_________

Records  : _________

          Userid                Password                 Account
        {SITFJB_____}         {SNS_____________}       {ST-103_____}
                                                       Accept Data  < >

FTP5095 Command completed successfully.
```

Example 3-1. Reserving Storage on a Remote Host for the Transferred File

3.3. Changing to the Parent Directory (CHANGE TO PARENT DIRECTORY Screen)

Function

Use the CHANGE TO PARENT DIRECTORY screen to change to the parent of the current working directory on a remote foreign host.

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-2 shows the CHANGE TO PARENT DIRECTORY screen.

```
FTP 6R1            CHANGE TO PARENT DIRECTORY        97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host : ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_______________________________

          Userid                 Password                  Account
       {___________}          {__________________}       {__________}



                                                        Accept Data  < >
```

Figure 3-2. CHANGE TO PARENT DIRECTORY Screen

Screen Field Descriptions

Table 3-2 describes the fields in the CHANGE TO PARENT DIRECTORY screen.

Table 3-2. CHANGE TO PARENT DIRECTORY Screen Fields

Field	Description
Host	The name of the remote host where you want to change to the parent directory. Use 1 to 255 alphanumeric characters. If you omit the host identifier, the host to which you are currently logged in is used. Omit a host-id during a session unless you want the current session to be closed and a new session opened. This field is required if a session is not currently active. For more information about specifying host-ids, see Section 1.
Userid	Specifies a userid to access the file on the remote host, if required. Use 1 to 12 alphanumeric characters.
Password	The password required to access the directory on the remote host. This parameter may be optional depending on the requirements of the remote host. Use 1 to 18 alphanumeric characters.
Account	The number required to access the directory on the remote host, if required. Use 1 to 12 alphanumeric characters.

Procedure

To change from the current directory to its parent directory:

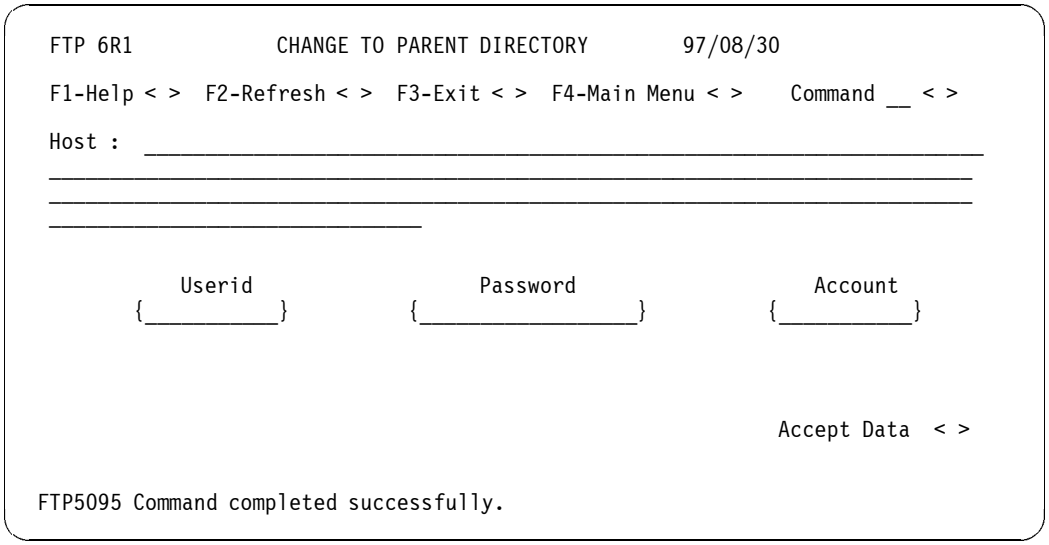
1. Display the CHANGE TO PARENT DIRECTORY screen from the MAIN MENU or from any other command screen.
2. If a session is not already active with the remote host, enter the name of the remote host in the Host field.
3. Enter your userid, password, and account number for the remote host if required.
4. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-2 for additional information about field values.

Example

Example 3-2 shows how to change from the current directory to its parent directory. The host name, userid, password, and account are not needed when a session is already active with the remote host where the directory is located.



Example 3-2. Changing to the Parent Directory

3.4. Changing the Working Directory (CHANGE WORKING DIRECTORY Screen)

Function

Use the CHANGE WORKING DIRECTORY screen to change the current working directory on a remote foreign host for file storage or file retrieval purposes.If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-3 shows the CHANGE WORKING DIRECTORY screen.

```
FTP 6R1              CHANGE WORKING DIRECTORY              97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >
Host : ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________

*To specified directory:
_____________________________________________________________________________
_____________________________________________

        Userid                  Password                  Account
    {___________}           {________________}          {___________}
                                                          Accept Data < >
```

Figure 3-3. CHANGE WORKING DIRECTORY Screen

Screen Field Descriptions

Table 3-3 describes the fields in the CHANGE WORKING DIRECTORY screen.

Table 3-3. CHANGE WORKING DIRECTORY Screen Fields

Field	Description
Host	The identifier of the remote host where you want to change the working directory. Use 1 to 255 alphanumeric characters. If you omit the host identifier, the host to which you are currently logged in is used. Omit a host-id during a session unless you want the current session to be closed and a new session opened. This field is required if a session is not currently active. For more information about specifying host-ids, see Section 1.
*To specified directory	The name of the path to be changed on a remote foreign host. Use 1 to 132 alphanumeric characters. This field is required.
Userid	The user identifier required to access the remote host. This field is optional depending upon the requirements of the remote host. Use 1 to 12 alphanumeric characters.
Password	The password, as required by the remote host. Use 1 to 18 alphanumeric characters.
Account	The number, as required by the remote host. This field is optional depending upon the requirements of the remote host. Use 1 to 12 alphanumeric characters.

Procedure

To change the working directory on the remote host where you want to transfer a file:

1. Display the CHANGE WORKING DIRECTORY screen from the MAIN MENU or from any other command screen.
2. If a session is not already active with the remote host where you want to change the working directory, enter the host-id in the Host field.
3. In the To specified directory field, specify the address path on the remote host.
4. Enter your userid, password, and account number for the remote host if required.
5. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-3 for additional information about field values.

Example

Example 3-3 shows how to change the current working directory. The host name, userid, password, and account are omitted because a session is already active with the remote host where the directory is located.

```
FTP 6R1             CHANGE WORKING DIRECTORY              97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >
Host : ____________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_____________________________
*To specified directory:
\TAS\MEMOS_____________________________________________________________________
_____________________________________________________
        Userid                    Password                  Account
    {___________}          {__________________}          {___________}
                                                          Accept Data < >


FTP5095 Command completed successfully.
```

Example 3-3. Changing the Working Directory on a Remote Host

3.5. Deleting a File (DEALLOCATE Screen)

Function

Use the DEALLOCATE screen to delete a file on either a:

- Local host
- Remote host

When you delete a file you free space on a host for other users.

You delete one file each time you transmit this screen.

Note: *You cannot use the DEALLOCATE command to delete a file element.*

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-4 shows the DEALLOCATE screen.

```
FTP 6R1                          DEALLOCATE                          97/08/30
 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*File name:
_____________________________________________________________________________

 Host: _____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
____________________

    Userid            Password     Clearance Level    Account       Project
{___________}   {_________________}     __        ___________   ___________

                                                              Accept Data < >
```

Figure 3-4. DEALLOCATE Screen

Screen Field Descriptions

Table 3-4 describes the fields in the DEALLOCATE screen.

Table 3-4. DEALLOCATE Screen Fields

Field	Description
*File name:	The name of the file you want to delete. This must be a valid file name for the system on which the file resides. The name cannot contain underscores. This field is required. For more information on specifying file names, see Section 1.
Host:	The identifier of the remote host where you want to change the working directory. Use 1 to 255 alphanumeric characters. If you omit the host identifier, the host to which you are currently logged in is used. Omit a host-id during a session unless you want the current session to be closed and a new session opened. This field is required if a session is not currently active. For more information about specifying host-ids, see Section 1.
Userid	The user identifier as required by the remote host. Use 1 to 12 alphanumeric characters.
Password	The password, as required by the host where the file resides. Use 1 to 18 alphanumeric characters. This field is required when the file resides on the local host and the file has read/write keys.
Clearance Level	The clearance level, as required by the remote host. Enter a number between 0 and 63.
Account	The number, as required by the remote host. Use 1 to 12 alphanumeric characters.
Project	The project identifier, as required by the remote host. Use 1 to 12 alphanumeric characters.

3.5.1. Deleting a File on a Local Host

Procedure

To delete a file on a local host:

1. Display the DEALLOCATE screen from the MAIN MENU or from any other command screen. You must not be logged in to a remote host.
2. In the File name field, enter the name of the file you want to delete.

3. If the file you want to delete has read/write keys, enter a password in the Password field.
4. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-4 for additional information about field values.

Example

Example 3-4 shows how to delete a file on a local host.

```
FTP 6R1                          DEALLOCATE                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*File name:
OMNFILE_____________________________________________________________________

 Host: ______________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
____________________

    Userid          Password     Clearance Level    Account        Project
{___________}   {_____________}     __          __________   ___________



                                                              Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-4. Deleting a File on a Local Host Using the DEALLOCATE Screen

3.5.2. Deleting a File on a Remote Host

Procedure

To delete a file on a remote host:

1. Display the DEALLOCATE screen from the MAIN MENU or from any other screen.
2. In the File name field, enter the name of the file you want to delete.
3. If a session is not already active with the remote host where the file resides, enter the name of the remote host in the Host field.
4. In the Userid field, enter the user identifier, as required by the remote host.
5. In the Password field, enter the password as required by the remote host.
6. In the Account field, enter the account number, as required by the remote host.

7. In the Project field, enter the project identifier, as required by the remote host.
8. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-4 for additional information about field values.

Example

Example 3-5 shows how to delete a file on a remote host. (In actual practice, userid and password are not displayed.)

```
FTP 6R1                              DEALLOCATE                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >


*File name:
SYMFILE_____________________________________________________________________

 Host: KP-01_____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
___________________

    Userid          Password        Clearance Level  Account     Project
 {SITFJB_____}   {SNS_____________}   12          ST-103_____  COMMS_______


                                                                Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-5. Deleting a File on a Remote Host Using the DEALLOCATE Screen

3.6. Deregistering a File (DREGISTER Screen)

Function

Use the DREGISTER screen to deregister a file from event notification. If event notification is in effect, TAS starts a user-defined runstream when the registered file name is received.

When a file is deregistered, no runstream is started when the file is received.

If the deregister function attempts to deregister the last file registered with an application —id and there is saved status information for that application-id, then the file is not deregistered until you retrieve the status information using the ddn_stat function.

If DeRegister ALL=YES and no file name is entered, then all files associated with the application-id will be deregistered regardless of any saved status information.

Screen

Figure 3-5 shows the DREGISTER screen.

```
 FTP 6R1                              DREGISTER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Application ID:___________
File name:
_____________________________________________________________________________

 Wild Card Character: _
 De-Register All: yes__ NO__


                                                                 Accept Data < >
```

Figure 3-5. DREGISTER Screen

Screen Field Descriptions

Table 3-5 describes the fields in the DREGISTER screen.

Table 3-5. DREGISTER Screen Fields

Field	Description
*Application ID	This identifies the owner of the Event Notification record. Use 1 to 12 alphanumeric characters: a to z, A to Z, and 0 to 9. The name cannot contain underscores. This field is required.

continued

Table 3-5. DREGISTER Screen Fields (cont.)

Field	Description
File name	The name of the file that TAS should use to find the file name(s) to deregister. This must be a valid OS 2200 name. This identifier is not required if you want to deregister all the files registered to the specified application id.
Wild Card Character	Specifies which character in the file name field TAS should replace with a wild card indicator when it creates the deregister file-id. Use only one character. The character must be one of the characters in the file name field excluding the file name separator characters such as comma, asterisk, parentheses, period, or slash.
De-Register All	Indicates whether or not TAS should deregister all file name matches or just an exact match. YES If the file name field is not entered, then deregister all the files associated with the specified application-ID. If a value is entered for the file name, then deregister all files associated with the specified application-ID which also match teh file name. NO Deregister only the file specified in the file name field. The default is NO.

3.6.1. Deregistering All File Names Associated with an Application-ID

Procedure

To deregister all the file names associated with an application-ID:

1. Display the DEREGISTER screen from the MAIN MENU or from any other command screen.
2. In the Application ID field, enter the name of the application.
3. In the De-Register All field, select YES.
4. Transmit.

TAS then displays a completion message at the bottom of the screen.

See Table 3-5 for additional information about field values.

Example

The registered files associated with application-id AAA are:

```
       File 1:     bbc*eef

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character BBC         EEF

       File 2:     rrr*adfgg

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character RRR         ADFGG
```

The registered files associated with application-id BBG are:

```
       File 1:     abc*def.

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character A;AA        BCDHH       CCE
       File 2     uopt*abc.ggh

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character UOPT        ABC         GGH
```

The result is:

Both entries under application-id AAA are removed.

Example

Example 3-6shows how to deregister all file names associated with an application-id

```
 FTP 6R1                              DREGISTER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >


*Application ID:  AAA_______________
File name:
_____________________________________________________________
Wild Card Character: ___
De-Register All:  yes: ___  NO: ___









                                                                Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-6. Deregistering All FilenamesAssocaited with an Application-id

3.6.2. Deregistering FilenamesThat Have No Associated Wildcard

Procedure

To deregister filenames that have no associated wildcard:

1. Display the DEREGISTER screen from the MAIN MENU or from any other command screen.
2. In the Application ID field, enter the name of the application.
3. In the File name field, enter the name of the file to be deregistered.
4. Transmit.

TAS then displays a completion message at the bottom of the screen. See Table 3-5 for additional information about field values.

Example

The registered files associated with application-id AAA are:

```
       File 1:     bbc*eef

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character BBC         EEF

       File 2:     rrr*adfgg

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character RRR         ADFGG
```

The registered files associated with application-id BBG are:

```
       File 1:     abc*def.

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character A;AA        BCDHH       CCE
       File 2     uopt*abc.ggh

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character UOPT        ABC         GGH
       File 3     uopt*abc.ggh            wild-card = g

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character UOPT        ABC         ;;H
```

The file-id generated from the Deregister command filename is:

```
            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character A;AA        BCDHH       CCE
```

The result is:

Only File 2 under application-id BBG is removed.

```
FTP 6R1                          DREGISTER                        97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >


*Application ID:  BBG_______________
File name:
opt*abc.ggh_____________________________________________________________
Wild Card Character: ___
De-Register All:  yes: ___  NO: ___




                                                              Accept Data < >
FTP5095 Command completed successfully.
```

3.6.3. Deregistering FilenamesThat Match a Specified File Name

Procedure

To deregister filenames that match a specified file name:

1. Display the DEREGISTER screen from the MAIN MENU or from any other command screen.
2. In the Application ID field, enter the name of the application.
3. In the File name field, enter the name of the file to be deregistered.
4. In theWild Card Character field, enter the wildcard character to be used to deregister a file.
5. In the De-Register All field, select the YES field.
6. Transmit.

TAS then displays a completion message at the bottom of the screen. See Table 3-5 for additional information about field values.

Example

The registered files associated with application-id AAA are:

```
       File 1:     bbc*eef

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character BBC         EEF

       File 2:     rrr*adfgg

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character RRR         ADFGG
```

The registered files associated with application-id BBG are:

```
       File 1:     abc*def.

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character ABC       DEF
       File 2     uopt*abc.ggh

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character UOPT        ABC         GGH
       File 3     abZ*aefbcd            wild-card = Z

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character AB;;;;;;;;;;AEFBCD
       File 4     abc.*hef111.

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character ABC      HEF111
       File 5     pbc*jefr

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character PBC         JEFR
```

The file-id generated from the Deregister command filename is:

```
            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character :BCT        ;EF;;;;;;;;;
```

The result is:

Files 1, 4, and 5 under application–id BBG are deregistered.

```
FTP 6R1                          DREGISTER                        97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >


*Application ID:  BBG_______________
File name:
Zbc*ZefZ._____________________________________________________________
Wild Card Character: Z___
De-Register All:  yes: X  NO: ___




                                                              Accept Data < >
FTP5095 Command completed successfully.
```

3.6.4. Deregistering FilenamesThat Were REgistered With a Wildcard

Procedure

To deregister filenames that match a specified file name:

1. Display the DEREGISTER screen from the MAIN MENU or from any other command screen.
2. In the Application ID field, enter the name of the application.
3. In the File name field, enter the name of the file to be deregistered.
4. In theWild Card Character field, enter the wildcard character to be used to deregister a file.
5. Transmit.

TAS then displays a completion message at the bottom of the screen. See Table 3-5 for additional information about field values.

Example

The registered files associated with application-id AAA are:

```
       File 1:     bbc*eef

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character BBC         EEF

       File 2:     rrr*adfgg

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character RRR         ADFGG
```

The registered files associated with application-id BBG are:

```
       File 1:     abc*def.

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character ABC       DEF
       File 2     uopt*abc.ggh

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character UOPT        ABC         GGH
       File 3     abZ*aefbcd            wild-card = Z

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character AB;;;;;;;;;;AEFBCD
       File 4     abc.*hef111.

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character ABC      HEF111
       File 5     pbc*jefr

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character PBC         JEFR
       File 6     abc*aefa       Wild card = a

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character ;BC         ;EF;;;;;;;;;
```

```
       File 7     abc*aefa.

            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character ABC         AEFA
```

The file-id generated from the Deregister command filename is:

```
            Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
  Position
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
  Character :BC        ;EF;;;;;;;;;
```

The result is:

File 6 under application–id BBG is removed.

```
 FTP 6R1                              DREGISTER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >


 *Application ID:  BBG_______________
 File name:
 Zbc*ZefZ._____________________________________________________________________
 Wild Card Character: Z___
 De-Register All:  yes: ___  NO: ___




                                                                  Accept Data < >
 FTP5095 Command completed successfully.
```

3.7. Getting Help (FHELP Screen)

Function

FTP implementations can include different functionality. For example, many implementations do not accept record structure (STRUCTURE=RECORD). Use the FHELP screen to list the available file transfer functions on a:

- Local host
- Remote host

You can also use the FHELP screen to check the connection between the local host and another host in the network.

Screen

Figure 3-6 shows the FHELP screen.

```
FTP 6R1                          FHELP                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host: ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
____________________


                                                          Accept Data < >
```

Figure 3-6. FHELP Screen

Screen Field Descriptions

Table 3-6 describes the fields in the FHELP screen.

Table 3-6. FHELP Screen Fields

Field	Description
Host:	The identifier of the host for which you want a list of available functions. This field is required for a remote host if you are not already logged in to that host. If no session is established: • Omitting the host-id gives help for the local host • Specifying a host-id causes a connection to be opened, the help obtained, and the connection closed. If a session is established, this field is not needed. If you enter a host-id, the session is closed and a new session is opened to the specified host. When the command completes, the session is closed. For information about specifying host-ids, see Section 1.

3.7.1. Listing Available Functions on a Local Host

Procedure

To list functions for a local host (when you are not currently logged in to a remote host):

1. Display the FHELP screen from the Main Menu or from any other command screen.
2. Transmit the screen.

The file transfer facility displays the FHELP information.

Example

Example 3-7 shows how to list available functions for a local host.

```
FTP 6R1                          FHELP                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >


     Host: ____________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________

                                                          Accept Data <▒>
```

Example 3-7. Listing Available Functions for a Local Host Using the FHELP Screen

Example 3-8 shows the response to using the FHELP screen for a local host.

```
FTP 6R1                       FHELP INFORMATION                   97/08/30


           The Unisys TAS File Transfer Protocol processor provides a reliable
           and efficient means of sharing and transferring files between
           hosts in a network.

           This FTP implementation includes these functionalities
           and protocols;

                 * login            - USER, PASS, ACCT
                 * logout           - QUIT, REIN
                 * transfer         - PORT, PASV, MODE, TYPE
                                      STRU
                 * information      - HELP
                 * file action      - ALLO, REST, STOR, RETR
                                      APPE, DELE, ABOR
                 * miscellaneous    - NOOP


  F4-Return-To-Menu < >  F5-Return-To-Command < >    F10-more < >
```

Example 3-8. Response to Listing Available Functions on a Local Host Using the FHELP Screen

Note the use of the following fields at the bottom of the response screen:

Function Key/Field	Description
F4-Return-To-Menu < >	Displays the Main Menu.
F5- Return-To-Command < >	Displays the FHELP screen.

3.7.2. Listing Available Functions on a Remote Host

Procedure

To list functions for a remote host:

1. Display the FHELP screen from the MAIN MENU or from any other command screen.
2. In the Host field, enter the identifier of the remote host for which you want a list of available functions.
3. Transmit the screen.

The file transfer facility displays the FHELP information.

Example

Example 3-9 shows how to list the available functions on a remote host.

```
FTP 6R1                          FHELP                          97/08/30
 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >


     Host: 6-3-0-3_____________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_________________


                                                          Accept Data <▒>
```

Example 3-9. Listing Available Functions on a Remote Host Using the FHELP Screen

Example 3-10 shows the response to using the FHELP screen for a remote host.

```
 FTP 6R1                        FHELP INFORMATION                        97/08/30

The AJAX Model 100 Operating System provides a file transfer
protocol (FTP) implementation that includes the basic set of
commands.  Specifically, the following commands are supported:

           USER         QUIT           PORT
           TYPE         MODE           STRU
           RETR         STOR           NOOP

Appropriate error messages are returned when commands other
than those listed above are attempted.




  F4-Return-To-Menu < >  F5-Return-To-Command < >
```

Example 3-10. Response to Listing Available Functions on a Remote Host Using the FHELP Screen

Note the use of the following fields at the bottom of the response screen:

Function Key/Field	Description
F4-Return-To-Menu < >	Displays the Main Menu.
F5- Return-To-Command < >	Displays the FHELP screen.

3.8. Transferring Information Requested by a Foreign Host (FSITE Screen)

Function

Use the FSITE screen to send FTP protocol not supported by TAS command screens. This screen may only be used to send protocols to a remote non-OS 2200 host.

Note that you can also include FSITE information on the TRANSFER, GET, and PUT screens; however, some FTP implementations require you to use the FSITE screen prior to performing any other FTP functions.

This screen functions like the FTP QUOTE protocol in that whatever information you key in, is sent to the remote host. (However, TAS does not allow all protocols to be sent.)

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-7 shows the FSITE screen.

```
FTP 6R1                          FSITE                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host  : ____________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
_____________________________

*Information : ____________________________________________________________
_____________________________________________________________

        User-id            Password           Account
    {___________}     {__________________}    ___________


                                                          Accept Data  < >
```

Figure 3-7. FSITE Screen

Screen Field Descriptions

Table 3-7 describes the fields in the FSITE screen.

Table 3-7. FSITE Screen Fields

Field	Description
Host	The identifier of the foreign host. Use 1 to 255 alphanumeric characters. For information about specifying host-ids, see Section 1.
*Information	The information to be sent to the foreign host. You must include the FTP protocol as part of the information. The following FTP protocol commands are the only ones that may be entered: ALLO Reserve sufficient storage to accommodate the new file to be transferred CDUP Change the current working directory to the parent of the current working directory CWD Change the current directory to the specified directory MKD Make directory NOOP Specifies no action other that having the server send a reply PWD Print the current working directory RMD Remove directory SITE Provide services specific to the remote system SMNT Allow the user to mount a different file system data structure Use 1 to 132 alphanumeric characters. This field is required.
Password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.
Userid	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.
Account	The account number, as required by the foreign host. Use 1 to 12 alphanumeric characters.

Procedure

To transfer information requested by a foreign host:

1. Display the FSITE screen from the MAIN MENU or from any other command screen.
2. In the Host field, enter the identifier of the foreign host that requires the FSITE information, if you are not currently logged in to that host.
3. In the *Information field, enter the information for the foreign host.

4. In the Password field, enter the password as required by the foreign host.
5. In the Userid field, enter the userid as required by the foreign host.
6. In the Account field, enter the account number as required by the foreign host.
7. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

Example

Example 3-11 shows how to transfer FSITE information requested by a foreign host.

```
FTP 6R1                              FSITE                              97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host : 6-3-0-3_____________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________

*Information : CWD /home/guest4/tempfiles_____________________________________
_____________________________________________________________

        User-id           Password          Account
    {SITFJB_____}     {DAS_____________}    ____________



                                                          Accept Data < >
```

Example 3-11. Transferring Information Using the FSITE Screen

3.9. Requesting a File During a Session (GET Screen)

Function

Use the GET screen to transfer a file from a remote host to your local host during a session.Before using the GET screen, use the LOGIN screen to open a session.

Refer to:

- "Methods of Transferring Files" in 1.3 for a discussion of the differences between the GET and PUT commands and the TRANSFER command.
- 3.19, "Transferring a File," for more information about file transfers, keeping in mind that while using GET you are only transferring in one direction and that a session is open between the two hosts.

Screen

Figure 3-8 shows the GET screen.

```
 FTP 6R1                              GET                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Source File Name (on remote host):
_____________________________________________________________________________
*Destination File Name (on local host):
_____________________________________________________________________________
Type:  SYM __ All __ Omn __ Sdf __ Iow __          Max Record Size: __________
Translate:  Transparent __  Ascii __  Ebcdic __  L36 __
Mode:  STREAM __  Block __  Compressed __          Position:  REPLACE __  Add __
Structure:  FILE __  Record __                     Checkpoint mark:  __________
Checkpoint File Name:  ____________________________________________________

               Userid          Password     Level  Account           Project
(remote) :  {___________} {________________} ____  _______________  __________
Siteinfo  : ____________________________________________________________________
_____________________________________________________  Accept Data  < >
```

Figure 3-8. GET Screen

Screen Field Descriptions

Refer to the discussion of the TRANSFER screen for an explanation of the fields on this screen.

Example

Example 3-12 shows a file transfer during a session using the GET screen.

```
 FTP 6R1                              GET                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Source File Name (on remote host):
TEST*FILE.SENT_____________________________________________________________
*Destination File Name (on local host):
TEST*FILE.RECEIVED_____________________________________________________________
Type:  SYM __ All __ Omn __ Sdf __ Iow __          Max Record Size: __________
Translate:  Transparent __  Ascii __  Ebcdic __  L36 __
Mode:  STREAM __  Block __  Compressed __          Position:  REPLACE __  Add __
Structure:  FILE __  Record __                     Checkpoint mark:  __________
Checkpoint File Name:  _____________________________________________________

               Userid           Password     Level     Account       Project
(remote): {____________} {________________} ____  _______________ ____________
Siteinfo: ____________________________________________________________________
_____________________________________________________  Accept Data  < >
```

Example 3-12. Transferring a File Using the GET Screen

3.10. Opening a Session with a Remote Host (LOGIN Screen)

Function

Use the LOGIN screen to establish a session with a remote host. When a session between two hosts has been established, files can be transferred in either direction over the open path (using GET and PUT).

The use of a session saves administrative overhead for frequent file transfers.

Only one session is permitted at a time.

When you transmit the LOGIN screen, any existing session is closed and a new session is opened with the specified host.

For more information about sessions, refer to "Methods of Transferring Files" in 1.3.

Screen

Figure 3-9 shows the LOGIN screen.

```
FTP 6R1                          LOGIN                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Host name:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
 ___________________________________________________________

 Userid: {___________} Password: {__________________} Clearance Level:  __
 Account: ___________  Project:  _______________

                                                          Accept Data  < >
```

Figure 3-9. LOGIN Screen

Screen Field Descriptions

Table 3-8 describes the fields in the LOGIN screen.

Table 3-8. LOGIN Screen Fields

Field	Description
*Host name	The name of the remote host with which you wish to establish a session. Enter between 1 and 255 characters. This field is required. For more information about specifying host-ids, see Section 1.
Userid	The userid as required to log onto the remote host. This field is optional.
Password	The password, as required by the remote host. Use 1 to 18 alphanumeric characters. This field is optional.
Clearance Level	The clearance level as required by the remote host.
Account	The account number, as required by the remote host. Use 1 to 12 characters.
Project	The project number, as required by the remote host.

Procedure

To open a session with a remote host:

1. Display the LOGIN screen from the MAIN MENU or from any other command screen.
2. In the *Host name field, enter the identifier of the remote host with which you wish to establish a session.
3. In the Userid field, enter the userid that the remote host expects.
4. In the Password field, enter the password as required by the remote host.
5. In the Clearance level field, specify the clearance level that the remote host expects.
6. In the Account field, enter the account number as required by the remote host.
7. In the Project field, enter the project number that the remote host expects.
8. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

Example

Example 3-13 shows how to open a session using the LOGIN command.

```
FTP 6R1                          LOGIN                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Host name:
REMOTE1_____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
 _________________________________

 Userid: {SMITH.J___}    Password: {jrs_______________}  Clearance Level:  __
 Account: unisys_____    Project:  _______________


                                                          Accept Data   < >
```

Example 3-13. Opening a Session Using the LOGIN Screen

3.11. Making a Directory on a Remote Host (MAKE DIRECTORY Screen)

Function

Use the MAKE DIRECTORY screen to create a new directory or subdirectory on a remote foreign host.

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-10 shows the MAKE DIRECTORY screen.

```
FTP 6R1                      MAKE DIRECTORY                      97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host : ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_________________________

*Directory: _______________________________________________________________
_____________________________________________________________________________
        Userid              Password           Account
    {___________}    {________________}    {__________}
                                                        Accept Data  < >
```

Figure 3-10. MAKE DIRECTORY Screen

Screen Field Descriptions

Table 3-9 describes the fields in the MAKE DIRECTORY screen.

Table 3-9. MAKE DIRECTORY Screen Fields

Field	Description
Host	The name of the remote host where you want to create a directory or subdirectory. Use 1 to 255 alphanumeric characters. If you omit the host identifier, the host to which you are currently logged in is used. Omit a host-id during a session unless you want the current session to be closed and a new session opened. This field is required if a session is not currently active. For more information about specifying host-ids, see Section 1.
*Directory	The name of the directory or subdirectory you want to create on a foreign host. This field is required.
Userid	Specifies a userid to access the directory on the remote host, if required. Use 1 to 12 alphanumeric characters.
Password	The password required to access the directory on the remote host. This parameter may be optional depending on the requirements of the remote host. Use 1 to 18 alphanumeric characters.
Account	Account number to access the directory on the remote host, if required. Use 1 to 12 characters.

Procedure

To make a directory on a remote host:

1. Display the MAKE DIRECTORY screen from the MAIN MENU or from any other command screen.
2. If a session is not already active with the remote host where you want to create a directory, enter the name of the remote host in the Host field.
3. In the *Directory field, enter the full or partial pathname of the directory or subdirectory you want to create.
4. In the Userid field, enter the userid which the remote host expects.
5. In the Password field, enter the password as required by the remote host.
6. In the Account field, enter the account number as required by the remote host.
7. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

Example

Example 3-14 shows how to create a subdirectory on a remote host, assuming you are already logged in. This example assumes that you want to create a subdirectory under your current working directory, src/tas. You can provide the full pathname or only the subdirectory name.

```
FTP 6R1                      MAKE DIRECTORY                      97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host : ____________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_____________________________
*Directory: d1_________________________________________________________________
_______________________________________________________________________________
        Userid              Password           Account
    {___________}    {________________}    {__________}
                                                      Accept Data  < >


FTP5095 Command completed successfully.
```

Example 3-14. Creating a Directory

3.12. Printing the Current Directory on a Remote Host (PRINT WORKING DIRECTORY Screen)

Function

Use the PRINT WORKING DIRECTORY screen to display the name of the current working directory for this user. The name of the current directory and a completion message display at the bottom of this screen.

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-11 shows the PRINT WORKING DIRECTORY screen.

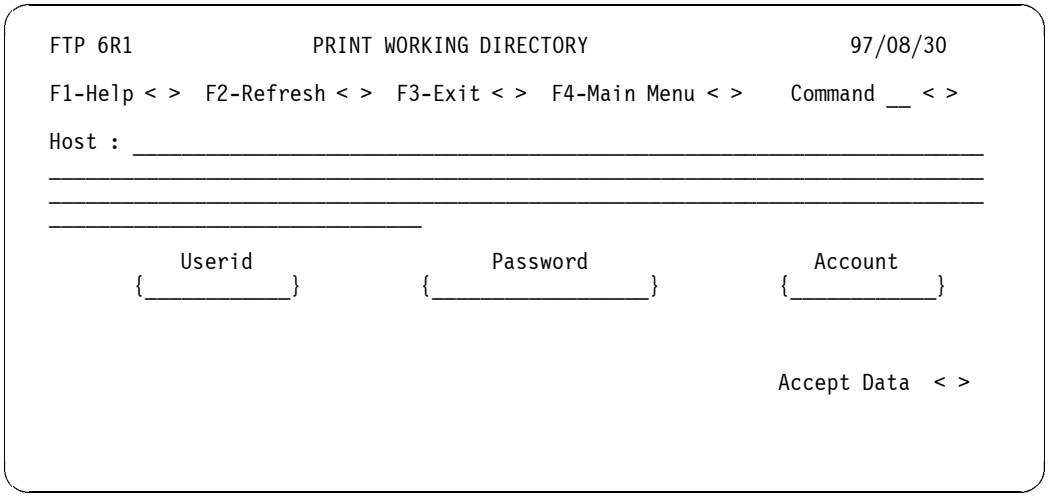


Figure 3-11. PRINT WORKING DIRECTORY Screen

Screen Field Descriptions

Table 3-10 describes the fields in the PRINT WORKING DIRECTORY screen.

Table 3-10. PRINT WORKING DIRECTORY Screen Fields

Field	Description
Host	The name of the remote host where the current working directory is located. Use 1 to 255 alphanumeric characters. If you omit the host identifier, the host to which you are currently logged in is used. Omit a host-id during a session unless you want the current session to be closed and a new session opened. This field is required if a session is not currently active. For more information about specifying host-ids, see Section 1.
Userid	Specifies a userid to access the directory on the remote host, if required. Use 1 to 12 alphanumeric characters.
Password	The password required to access the directory on the remote host. This parameter may be optional depending on the requirements of the remote host. Use 1 to 18 alphanumeric characters.
Account	Account number to access the directory on the remote host, if required. Use 1 to 12 characters.

Example

Example 3-15 shows the response screen when you request the name of the current working directory.

```
FTP 6R1              PRINT WORKING DIRECTORY                    97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host : ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_______________________________

          Userid                  Password                 Account
       {__________}            {________________}       {__________}


                                                          Accept Data  < >

FTP 257 Command processing successfully completed.  "/src/tas/d1" is current
directory.
```

Example 3-15. Displaying the Current Directory Name

3.13. Sending a File During a Session (PUT Screen)

Function

Use the PUT screen to transfer a file from your local host to a remote host during a session.

Before using the PUT screen, use the LOGIN screen to open a session.

Refer to:

- "Methods of Transferring Files" in 1.3 for a discussion of the differences between the GET and PUT commands and the TRANSFER command.
- 3.19, "Transferring a File," for more information about file transfers, keeping in mind that while using PUT you are only transferring in one direction and that a session is open between the two hosts.

Screen

Figure 3-12 shows the PUT screen.

```
 FTP 6R1                              PUT                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Source File Name (on local host):
_____________________________________________________________________________
*Destination File Name (on remote host):
_____________________________________________________________________________
Type:  SYM __  All __  Omn __  Sdf __  Iow __          Max Record Size: _________
Translate:  Transparent __  Ascii __  Ebcdic __  L36 __
Mode:  STREAM __  Block __  Compressed __          Position:  REPLACE __  Add __
Structure:  FILE __  Record __                     Checkpoint mark:  _________
Checkpoint File Name:  ____________________________________________________

              Userid          Password        Level    Account        Project
(local) : {___________}  {________________} ____  _____________   _________
Siteinfo  : ____________________________________________________________________
_____________________________________________________  Accept Data  < >
```

Figure 3-12. PUT Screen

Screen Field Descriptions

Refer to the discussion of the TRANSFER screen for an explanation of the fields on this screen.

Example

Example 3-16 shows a file transfer during a session using the PUT screen.

```
 FTP 6R1                              PUT                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Source File Name (on local host):
TEST.FILE_____________________________________________________________________
*Destination File Name (on remote host):
NEW.TEST.FILE_________________________________________________________________
Type:  SYM __ All __ Omn __ Sdf __ Iow __          Max Record Size: __________
Translate:  Transparent __  Ascii __  Ebcdic __  L36 __
Mode:  STREAM __  Block __  Compressed __          Position:  REPLACE __  Add __
Structure:  FILE __  Record __                     Checkpoint mark:  __________
Checkpoint File Name:  _______________________________________________________
             Userid        Password       Level    Account        Project
(local): {___________} {________________} ____  _____________  __________

Siteinfo  : ___________________________________________________________________
_____________________________________________________  Accept Data  < >
```

Example 3-16. Transferring a File Using the PUT Screen

3.14. Registering a File for Event Notification (REGISTER Screen)

How Register Works

When you issue a Register command, the file name you enter with the command is converted into a file-id. TAS then checks the list of previously registered file-ids. This check determines if there already is a registered file-id that exactly matches the file-id that you want to register.

In this comparison, a wild card indicator is treated as a normal character. Thus, wild card indicators must match corresponding wild card indicators for the file-ids to match.

If TAS finds a match with a previously registered file name, the command is rejected; otherwise the new file name is included in the list of registered files.

You must provide at least a qualifier and filename when registering a file.

Use the REGISTER screen to register a filename for event notification. When a file is registered, TAS starts a user-defined runstream when the registered filename is received at its destination.

You can register a single filename or a range of filenames.

You can specify a range of filenames with the wild card character.

You can specify start options for the runstream.

You can specify whether to @start or @add the runstream.

You can specify that the filename be deregistered after it is received.

You can specify that the filename and file transfer status be saved, waiting for a user to retrieve this information using the Status Request command.

3.14.1. Converting a File Name to a File-ID

TAS separates the submitted file name into seven parts to create the file-id. These are:

Part	Length
Qualifier	1-12 chars
filename	1–12 chars
f-cycle	0–3 chars
read key	0–6 chars

Part	Length
write key	0–6 chars
element name	0–12 chars
version	0–12 chars

If the information submitted for a part is less than the maximum length for that part, TAS adds trailing blanks to expand the part to its maximum length.

If a wild card character is provided as part of the Register command, TAS replaces all instances of that wild card character found in the file name with a wild card indicator (semicolon). If the wild card character is found as the last character in one of the parts, any remaining characters for that part will be stored as wild card indicators.

Example 1:

The following file name:

```
aaaaaaa*BBBBBB.CC
```

is converted to file-id:

```
           Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
Position   12345678901234567890123456789012345678901234567890123456789012345678901234
Character  AAAAAAA     BBBBBB      CC
```

Example 2:

The following file name with "Z" indicated as a wild card:

```
ABZFGZ*BBZ.TT
```

is converted to file-id:

```
           Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
Position   12345678901234567890123456789012345678901234567890123456789012345678901234
Character  AB;FG;;;;;;;BB;;;;;;;;;;TT
```

3.14.2. Incoming File Transfer

Overview

When a file is transferred to the 2200 as a result of a PUT command from a remote FTP client, TAS converts the incoming file name to a file-id and checks to see if the incoming file-id matches a previously registered file-id. If a match is found, the run stream associated with the registered file-id is executed (Add or Start).

Run Stream Selection

To determine which run stream to initiate, a comparison is made between the incoming file-id and every registered file-id in the registered list to determine the best match. In this comparison, a wild card indicator in the registered file-id always matches its corresponding character in the incoming file-id. Consequently, more than one match may be found.

An algorithm is used to determine the best match. It assumes that a match with a wild card indicator is not as good as a match with a character.

All characters of a registered file-id are compared against the incoming file-id. If there is a mismatch, a new compare is started using the next registered file-id. If there is no mismatch, a comparison value is generated. After all registered file-ids are compared, the registered file-id with the highest comparison value is determined to be the best match. The run stream associated with this file-id is then executed.

If two files have the same comparison value, the best match is determined by ranking the file-id parts in the following order (most important to least important):

File-id Parts In Order Of Importance

Qualifier

Fillename

F Cycle

Element

Read Key

Write Key

Version

The file that has the higher comparison value for a file-id part (in the order of importance) is considered the best match.

For example, if:

File A and file B both have a total comparison value of 65

File A and file B both have a QUALIFIER part comparison value of 12

File A has a FILENAME part comparison value of 10 and file B has a FILENAME part comparison value of 8

then file A is the best match.

Example

Assume that the file name received on a transfer command is:

```
AGCAA*BCDHH.CCE
```

This is converted to the following file-id:

```
           Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
Position   12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
Character AGCA         BCDHH       CCE
```

Assume there are the following two previously registered file names:

```
File 1:     ABCAA*BBDBB.CCB
```

where B is a wild card.

File 1 has the following file-id:

```
           Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
Position   12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
Character A;CAA       ;;D;;;;;;;;;CC;;;;;;;;;;

File 2:     AZZAA*BCDHH.CCE
```

where Z is a wild card.

File 2 has the following file-id:

```
           Qualifier   ^  Name     ^ Element   ^Cy^Rkey ^Wkey ^ Elt name  ^ Elt Vers
Position   12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
Character A;AA        BCDHH       CCE
```

The comparison values assigned to the file-id would then be:

Part	File 1 Values	File 2 Values
Qualifier	11	10
Filename	8	12
Element	2	12
Cycle	3	3
Read-Key	6	6
Write-Key	6	6
Element Name	12	12
Element Version	12	12
Total	60	73

Both file-ids are acceptable, because the incoming file-id matches all the characters in both the registered file-ids. However, file 2 has a higher total comparison value (73) than file 1. File 2 is therefore the best match.

3.14.3. The Register Screen

This section shows the Register screen and describes the fields on the screen.

Screen

Figure 3-13 shows the REGISTER screen.

```
 FTP 6R1                          REGISTER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Application ID: _______________
*Filename:
_____________________________________________________________
*Runstream:
_____________________________________________________________
Start Options:_______________              Control Value:____
Wild Card Character: __
One Time Registration: yes__  NO__
Save Filename and Status:  yes __  NO __

 Initiate: add _ start _                                          Accept Data  <
>
```

Figure 3-13. REGISTER Screen

Screen Field Descriptions

Table 3-11 describes the fields in the REGISTER screen.

Table 3-11. REGISTER Screen Fields

Field	Description
*Application ID	This identifies the owner of the event notification record. It is used by TAS to associate registered filenames with an owner (to be used when deregistering all file names or when obtaining even notification status). Use 1 to 12 alphanumeric characters. This field is required.
*Filename	This is the name of the file you want to register. This must be a valid OS 2200 name and must include at last a qualifier and file name. This field is required.
*Runstream	This is the name of the user-defined runstream that will be started when this registered file is received. This must be a valid OS 2200 filenameand must include at least a qualifier and file name. This field is required.
Start Options	The options used to start the user-defined runstream. The valid start options are B, C, E to L, M, N, P, R to U, and W to Z. The X option is supported if the user has sufficient privileges. This field is optional.
Wild Card Character	This indicates which character in theFILENAME field should be treated as a wild card when TAS matches an incoming file name with a registered one. Use only one character. The value must be alphabetic or numeric.
One Time Registration	YES Deregisters the filename when a file transfer is received that matches the file name that was registered. NO Does not deregister the filename after a file transfer is received that matches the file name that was registered. The default is NO.

continued

Table 3-11. REGISTER Screen Fields (cont.)

Field	Description
Save Filename and Status	YES Saves the filename and file transfer status until a Status Request command is received. NO Does not save the filename or file transfer status. The default is NO.
Control Value	This is an octal value which TAS enters in the SETC parameter of the @START ECL statement it executes for the even notification runstream.This is a 1 to 4-digit field with a leading 0 and no digit greater than 7, for example, 0235 This field is optional.
Initiate	Indicates how to execute the runstream. Add = using an @ADD ECL statement. A response is not returned to the initiator of the command until the runstream completes. Start = using an @START ECL statement. A response is returned to the initiator of the command as soon as the @START is issued.

3.14.4. Registering a Filename

Procedure

To register a filename:

1. Display the REGISTER screen from the MAIN MENU or from any other command screen.
2. Enter the name of the application or user in the Application ID field.
3. Enter the name of the file in the Filename field.
4. Enter the name of the runstream in the Runstream field.
5. Transmit.

The file transfer facility then displays a completion message at the bottom of the screen.

Example

Example 3-17 shows how to register a filename.

```
 FTP 6R1                          REGISTER                        97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Application ID: ftpappl_________
*Filename:
 TEST*File._____________________________________________________________
*Runstream:
 Start*File.Element_____________________________________
Start Options:_______________                              Control Value:
________
Wild Card Character: __
One Time Registration: yes__  NO__
Save Filename and Status:  yes __  NO __

Initiate: add __ START __                                          Accept Data
< >
```

Example 3-17. Registering a Filename Using the REGISTER Screen

3.14.5. Registering a Filename with a Wildcard Character

Procedure

To register a filename with a wildcard character:

1. Enter the name of the application or user in the Application ID field.
2. Enter the filename in the Filename field with a wild card character.
3. Enter the runstream in the Runstream field.
4. Enter the wild card character that was used in the Filename field into the Wild Card Character field.
5. Transmit.

The file transfer facility then displays a completion message at the bottom of the screen.See Table 3-11 for additional help on field values.

Example

Example 3-18 shows how to register a filename with a wildcard character.

```
 FTP 6R1                          REGISTER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Application ID: ftpappl_________
*Filename:
Qual*FileX._____________________________________________________
*Runstream:
 Start*File.Element_____________________________________________
Start Options:_____________                          Control Value:_________
Wild Card Character: X_
One Time Registration: yes__  NO__
Save Filename and Status:  yes __  NO __

Initiate: add __ START __                                    Accept Data  < >
```

Example 3-18. Registering a Filename with a Wildcard Character

3.14.6. Registering Using One-Time Registration and Save Status

Procedure

To register a filename with options:

1. Display the REGISTER screen from the MAIN MENU or from any other command screen.
2. Enter the name of the application in the Application ID field.
3. Enter the filename in the Filename field.
4. Enter the runstream in the Runstream field.
5. In the One Time Registration field, indicate that you want one-time registration.
6. In the Save filename and Status field, indicate that you want the filename and file status saved.
7. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-11 for additional help about field values.

Example

Example 3-19 shows how to register using the options.

```
 FTP 6R1                          REGISTER                        97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Application ID: ftpappl_________
*Filename:
Qual*Filewest_____________________________________________________
*Runstream:
 Start*File.Element_____________________________________________
Start Options:_______________                    Control Value: _______
Wild Card Character: __
One Time Registration: yes X_  NO__
Save Filename and Status:  yes X_  NO __


Initiate: add __ START __                                  Accept Data  < >

  FTP5095  Command completed successfully.
```

Example 3-19. Registering Using One-Time Registration and Save Status

3.15. Removing a Directory on a Remote Host (REMOVE DIRECTORY Screen)

Function

Use the REMOVE DIRECTORY screen to remove a directory on a remote foreign host.

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-14 shows the REMOVE DIRECTORY screen.

```
FTP 6R1                    REMOVE DIRECTORY                    97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host: ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________
*Directory: ____________________________________________________________
_____________________________________________________________________________

       Userid                  Password                  Account
   {____________}          {____________________}          {____________}
                                                          Accept Data < >
```

Figure 3-14. REMOVE DIRECTORY Screen

Screen Field Descriptions

Table 3-12 describes the fields in the Remove Directory screen.

Table 3-12. REMOVE DIRECTORY Screen Fields

Field	Description
Host	The identifier of the remote host where the directory you want to remove is located. Use 1 to 255 alphanumeric characters. If you omit the host identifier, the host to which you are currently logged in is used. Omit a host-id during a session unless you want the current session to be closed and a new session opened. This field is required if a session is not currently active. For more information about specifying host-ids, see Section 1.
*Directory	The name of the directory you want to remove. Use 1 to 132 alphanumeric characters. This field is required.
Userid	The user identifier required to access the remote host. This field is optional depending upon the requirements of the remote host. Use 1 to 12 alphanumeric characters.
Password	The password, as required by the remote host. Use 1 to 18 alphanumeric characters.
Account	The account number, as required by the remote host. This field is optional depending upon the requirements of the remote host. Use 1 to 12 alphanumeric characters.

Procedure

To remove a directory:

1. Display the REMOVE DIRECTORY screen from the MAIN MENU or from any other command screen.
2. If a session is not already active with the remote host where you want to remove the directory, enter the name of the remote host in the Host field.
3. In the Directory field, enter the name of the directory to be removed.
4. In the Userid field, enter the userid as required by the foreign host to access the directory.
5. In the Password field, enter the password as required by the foreign host to access the directory.
6. In the Account field, enter the account number as required by the foreign host to access the directory.
7. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-12 for additional information about field values.

Example

Example 3-20 shows how to remove a directory on a remote host.

```
FTP 6R1                    REMOVE DIRECTORY                    97/08/30

F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host: ____________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
_____________________
*Directory: \TAS\SAMPLES_____________________________________________________
______________________________________________________________________________

       Userid                  Password                  Account
   {___________}          {__________________}          {___________}
                                                          Accept Data < >

FTP 5095 Command completed successfully.
```

Example 3-20. Removing a Directory

3.16. Renaming a File (RENAME Screen)

Function

Use the RENAME screen to rename a file. The file must exist on a remote foreign host.

If you enter a host name, any existing session is closed and a new session is opened with the specified host.

Screen

Figure 3-15 shows the RENAME screen.

```
FTP 6R1                          RENAME                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host: ____________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________

*From file name:
_____________________________________________________________________________

*To file name:
_____________________________________________________________________________

    Userid          Password              Account
{__________}  {________________}  ____________________

                                                          Accept Data < >
```

Figure 3-15. RENAME Screen

Screen Field Descriptions

Table 3-13 describes the fields in the RENAME screen.

Table 3-13. RENAME Screen Fields

Field	Description
Host:	The identifier of the host where the file resides. Use 1 to 255 alphanumeric characters. If you omit the host identifier, the host to which you are currently logged in is used. Omit a host-id during a session unless you want the current session to be closed and a new session opened. This field is required for a remote host if a session is not currently active. For more information about specifying host-ids, see Section 1.
*From file name	The name of the file you want to rename. This must be a valid file name for the system on which the file resides. The name cannot contain underscores. This field is required. For more information about specifying file names, see Section 1.
*To file name:	The new file name for the file you specify in the *From file name field. This must be a valid file name for the system on which the file resides. The name cannot contain underscores. This field is required. For more information about specifying file names, see Section 1.
Password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.
Userid	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.
Account	The account number, as required by the foreign host. Use 1 to 12 alphanumeric characters.

Procedure

To rename a file:

1. Display the RENAME screen from the Main Menu or from any other command screen.
2. If a session is not already active with the remote host where the file is located, enter the name of the host in the Host field.
3. In the *From file name field, enter the name of the file you want to rename.
4. In the *To file name field, enter the new file name.
5. In the Password field, enter the password as required by the foreign host to access the file.
6. In the Userid field, enter the userid as required by the foreign host to access the file.

7. In the Account field, enter the account number as required by the foreign host to access the file.
8. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-13 for additional information about field values.

Example

Example 3-21 shows how to rename a file.

```
 FTP 6R1                          RENAME                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

Host: 4-3-0-3_____________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________

*From file name:
SDFFILE._____________________________________________________________________

*To file name:
SDFFILE1._____________________________________________________________________

    Userid            Password            Account
 {SITFJB_____}  {DAS_______________}  {___________}

                                                              Accept Data < >
```

Example 3-21. Renaming a File Using the RENAME Screen

3.17. Restarting a File Transfer (RESUME Screen)

Function

Use the RESUME command screen to recover a file transfer operation that abnormally terminates.You can resume a file transfer that you initiated:

- Within a local host
- From a local to a remote host
- From a remote to a local host
- Between remote hosts

You can also indicate specifically where you want a file transfer to resume.

Note: *The file transfer facility uses a checkpoint file to recover a file transfer. Therefore, you must have specified a checkpoint file name on the TRANSFER, GET, or PUT screen when you transferred the file. If you did not specify a checkpoint file name, you cannot restart a file transfer.*

Screen

Figure 3-16 shows the RESUME screen.

```
FTP 6R1                          RESUME                          97/08/30

 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Checkpoint file name: ____________________________________________

 At checkpoint id    : ___________

 From file password  : {________________}     Clearance Level: {__}

 To file password    : {________________}     Clearance Level: {__}

                                                          Accept Data < >
```

Figure 3-16. RESUME Screen

Screen Field Descriptions

Table 3-14 describes the fields in the RESUME screen.

Table 3-14. RESUME Screen Fields

Field	Description
*Checkpoint file name	The name of the checkpoint file you specified on the TRANSFER, name GET, or PUT screen. This must be a valid OS 2200 file name. This field is required.
At checkpoint id:	The identifier of a checkpoint marker listed in the checkpoint file. Indicates where you want the transfer to resume. For more information about checkpointing, see Section 1 and "Specifying a Restart Point for File Transfer Recovery" later in this section. If you omit the checkpoint-id, the file transfer resumes at the last checkpoint-id listed in the checkpoint file.
From file password:	The password you specified in the Source (1) Password field on the TRANSFER or GET screen when you transferred the file. Use 1 to 18 alphanumeric characters. This field is required when the file resides on either a: • Remote host • Local host, and the file has read/write keys
Clearance Level	The clearance level associated with the original file. Enter a number between 0 and 64.
To file password:	The password you specified in the destination (2) Password field on the TRANSFER or PUT screen when you transferred the file. Use 1 to 18 alphanumeric characters. This field is required when the file resides on either a: • Remote host • Local host, and the file has read/write keys
Clearance Level	The clearance level associated with the destination file name. Enter a number between 0 and 64.

3.17.1. Restarting a File Transfer (within a Local Host)

Procedure

To restart a file transfer within a local host:

1. Display the RESUME screen from the MAIN MENU or from any other command screen.

2. In the Checkpoint file name field, enter the name of the checkpoint file you specified on the TRANSFER screen.
3. In the From file password field, enter the password you specified for the source file on the TRANSFER command screen if the file has read/write keys.
4. In the To file password field, enter the password you specified for the destination file on the TRANSFER command screen if the file has read/write keys.
5. If you want to specify where to restart a file transfer, see "Specifying a Restart Point for a File Transfer Recovery" later in this section.
6. Transmit the screen.

The file transfer facility displays a completion message at the bottom of the screen.

See Table 3-14 for additional information about field values.

Example

Example 3-22 illustrates restarting a file transfer within a local host.

```
FTP 6R1                          RESUME                          97/08/30
 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Checkpoint file name: CHK_____________________________________

 At checkpoint id    : ___________

 From file password  : {_____________}      Clearance Level: {__}

 To file password    : {_____________}      Clearance Level: {__}
                                                          Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-22. Restarting a File Transfer within a Local Host Using the RESUME Screen

3.17.2. Restarting a File Transfer (Local to Remote)

Procedure

To restart a file transfer from a local host to a remote host:

1. Display the RESUME screen from the MAIN MENU or from any other command screen.
2. In the Checkpoint file name field, enter the name of the checkpoint file you specified on the TRANSFER or PUT screen.

3. In the From file password field, enter the password you specified for the source file on the TRANSFER command screen if the file has read/write keys.
4. In the To file password field, enter the password you specified for the destination file on the TRANSFER or PUT screen.
5. If you want to specify where to restart a file transfer, see "Specifying a Restart Point for a File Transfer Recovery" later in this section.
6. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-14 for additional information about field values.

Example

Example 3-23 illustrates restarting a file transfer from a local host to a remote host.

```
FTP 6R1                          RESUME                          97/08/30
 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Checkpoint file name: CHK_____________________________________________
 At checkpoint id    : ___________
 From file password  : {_________________}      Clearance Level:  {__}
 To file password    : {RHD_______________}      Clearance Level:  {__}
                                                              Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-23. Restarting a File Transfer (Local-to-Remote) Using the RESUME Screen

3.17.3. Restarting a File Transfer (Remote to Local)

Procedure

To restart a file transfer from a remote host to the local host:

1. Display the RESUME screen from the MAIN MENU or from any other command screen.
2. Enter the name of the checkpoint file in the Checkpoint file name field.
3. In the From file password field, enter the password you specified for the source file on the TRANSFER or GET command screen.
4. In the To file password field, enter the password you specified for the destination file on the TRANSFER screen.

5. If you want to specify where to restart a file transfer, see "Specifying a Restart Point for a File Transfer Recovery" later in this section.
6. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-14 for additional information about field values.

Example

Example 3-24 illustrates restarting a file transfer from a remote host to a local host.

```
 FTP 6R1                          RESUME                          97/08/30
  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Checkpoint file name: CHK_____________________________________

 At checkpoint id    : ___________

 From file password  : {SNS_____________}    Clearance Level:  {__}

 To file password    : {________________}    Clearance Level:  {__}

                                                              Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-24. Restarting a File Transfer from a Remote Host to a Local Host Using the RESUME Screen

3.17.4. Restarting a File Transfer (between Remote Hosts)

Procedure

To restart a file transfer between remote hosts:

1. Display the RESUME screen from the Main Menu or from any other command screen.
2. In the Checkpoint file name field, enter the name of the checkpoint file you specified on the TRANSFER screen.
3. In the From file password field, enter the password you specified for the source file on the TRANSFER command screen
4. In the To file password field, enter the password you specified for the destination file on the TRANSFER command screen.
5. If you want to specify where to restart a file transfer, see "Specifying a Restart Point for a File Transfer Recovery", later in this section.
6. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-14 for additional information about field values.

Example

Example 3-25 shows how to restart a file transfer between remote hosts.

```
FTP 6R1                          RESUME                          97/08/30
 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Checkpoint file name: CHK_____________________________________________
 At checkpoint id    : ___________
 From file password  : {SNS_____________}    Clearance Level:  {__}
 To file password    : {RHD_____________}    Clearance Level:  {__}
                                                            Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-25. Restarting a File Transfer between Remote Hosts Using the RESUME Screen

3.17.5. Specifying a Restart Point for a File Transfer Recovery

Use the At checkpoint id field to specify a checkpoint-id (checkpoint marker). The checkpoint-id indicates where you want to resume a transfer. You can:

- Use this field for any type of file transfer.
- Restart a file transfer from any one of the checkpoint-ids reported in the checkpoint file.

If you leave this field blank, the transfer resumes at the last checkpoint-id in the checkpoint file.

To determine a restart point, you need to access the checkpoint file.

For additional information on checkpointing, see Section 1.

Procedure

To restart a file transfer by specifying a restart point:

1. Display the checkpoint file using any OS 2200 editor.

> **Caution**
>
> Do not change the contents of the checkpoint file. If you do, you may not be able to recover the file.

2. Select a checkpoint-id from the checkpoint file to use as the restart point for the file transfer. The checkpoint-id is located after the word, MARK, and before the equal sign. If you omit the hyphen and the 0, a value of 0 is assumed. For example:

   ```
   MARK 1920-0 = 1920-0 16:17:41.
   ```

   In this example, you can specify the checkpoint-id as 1920-0 or 1920 with the same effect.

3. In the Checkpoint file name field, enter the name of the checkpoint file you specified on the TRANSFER, GET, or PUT screen.
4. In the At checkpoint id field, enter the checkpoint-id you selected in step 2.
5. In the From file password field, enter the password you specified for the source file on the TRANSFER or GET command screen.
6. In the To file password field, enter the password you specified for the destination file on the TRANSFER or PUT command screen.
7. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

Example

Example 3-26 shows the contents of a sample checkpoint file.

```
FROM=FILEA
TO=SD-01::FILEB
USER=DDNJM
ACCO=696382860010
POSI=R
TYPE=S
TRAN=T
MODE=B
STRU=F
MAXR=3968
CHEC=CHK
MARK=10
MARK  640-0=640-0   16:17:40
MARK  1280-0=1280-0 16:17:41
MARK  1920-0=1920-0 16:17:42
MARK  2560-0=2560-0 16:17:42
MARK  3200-0=3200-0 16:17:43
MARK  3840-0=3840-0 16:17:43
MARK  4480-0=4480-0 16:17:43
```

Example 3-26. Sample Checkpoint File

Example 3-27 shows how to restart a file transfer by selecting 1920 as the restart checkpoint-id.

```
FTP 6R1                          RESUME                          97/08/30
 F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Checkpoint file name: CHK_____________________________________

 At checkpoint id    : 1920________

 From file password  : {FILEA_______}    Clearance Level:  {__}

 To file password    : {FILEB_______}    Clearance Level:  {__}

                                                          Accept Data < >
FTP5095 Command completed successfully.
```

Example 3-27. Specifying a Restart Point Using the RESUME Command Screen

3.18. Getting Filename and File Registration Status (STATUS REQUEST Screen)

Function

Use the STATUS REQUEST screen to get the saved filename and file completion status from the file transfer program if this information has been requested using a Register command.

You can deregister the filename entry that is associated with this saved status.

Screen

Figure 3-17 shows the STATUS REQUEST screen.

```
FTP 6R1                          STATUS REQUEST                        97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Application ID:   ____________________________
 De-Register Entry: yes__ NO__


Filename Received:


File Status:


                                                                 Accept Data < >
```

Figure 3-17. STATUS REQUEST Screen

Screen Field Descriptions

Table 3-15 describes the fields in the STATUS REQUEST screen.

Table 3-15. STATUS REQUEST Screen Fields

Field	Description
*Application ID	This identifies the owner of the event notification record. Use 1 to 12 alphanumeric characters: a to z, A to Z, and 0 to 9. This is a required field.

continued

Table 3-15. STATUS REQUEST Screen Fields (cont.)

Field	Description
De-Register Entry	Yes Deregisters the filename record that matches this saved record. The last filename cannot be deregistered if there is Saved status. NO Do not deregister any filename records. The default is NO.
Filename Received	This information is supplied by TAS.
File Status	This information is supplied by TAS.

Procedure

To get the filename and file status:

1. Display the STATUS REQUEST screen from the MAIN MENU or from any other command screen.
2. Enter the name of the application in the Application ID field.
3. Transmit the screen.

The file transfer facility then displays the filename and status. If there are any errors, the errors are displayed at the bottom of the screen and the filename and status are not displayed.

Example

Example 3-28 illustrates getting the saved status.

```
FTP 6R1                          STATUS REQUEST                    97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

*Application ID:   ftpappl___________________
 De-Register Entry: yes__ NO__


Filename received:
Qual*Filename

File Status:


                                                              Accept Data < >
```

Example 3-28. Using the STATUS REQUEST Screen

3.19. Transferring a File (TRANSFER Screen)

Function

Use the TRANSFER screen to transfer a copy of a file or element:

- Within a local host
- From a local to a remote host
- From a remote to a local host
- Between remote OS 2200 hosts

Optionally, you can include more specific instructions about a file transfer. Using the TRANSFER screen, you can:

- Define the sending file or element type
- Define maximum record length in the transmission file
- Identify data representation in the transmission file
- Place or replace data in the receiving file
- Define transmission data
- Identify when to take a checkpoint mark
- Define data structure in the transmission file
- Create a checkpoint file
- Specify site information requested by a foreign host

The field values you specify on the TRANSFER screen depend on the:

- Type of file you transfer

  For example, you can transfer:

  - ASCII data
  - EBCDIC data
  - Binary data
  - An SDF file
  - A program file
  - An element of a program file
- Types of hosts involved in the transfer

  For example, you can transfer:

  - To or from an OS 2200 host
  - To or from a non-OS 2200 host
- Purpose of the transfer

For example, you can transfer a file to a destination host for:

- Temporary storage
- Use or processing

To help you determine which values to specify on the TRANSFER screen, see "File Transfer Guidelines," later in this section.

Screen

Figure 3-18 shows the TRANSFER screen.

```
FTP 6R1                          TRANSFER                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      _____________________        *Source File Name:
_____________________________________________________________________________
 Destination Host: _____________________        *Destination File Name:
_____________________________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic _  L36 _
Mode: STREAM _  Block _ Compressed _               Position: REPLACE _  Add _
Structure: FILE _  Record _                        Checkpoint mark: _____
Checkpoint file name: _____________________________________________

                Userid           Password       Level   Account     Project
(Source) : {___________}   {__________________}  __   ___________   ________
(Dest)   : {___________}   {__________________}  __   ___________   ________
Siteinfo: _____________________________________________________________________
_____________________________________________________Accept Data < >
```

Figure 3-18. TRANSFER Screen

Screen Field Descriptions

Table 3-16 describes the fields in the TRANSFER screen. For additional help using the Type, Translate, and Structure fields, see Table 3-17.

Table 3-16. TRANSFER Screen Fields

Field	Description
Source Host:	The name of the host where the file or element resides. Use 1 to 24 alphanumeric characters. The default is the local host. For more information about specifying host-ids, see Section 1.

continued

Table 3-16. TRANSFER Screen Fields (cont.)

Field	Description
*Source File Name:	The name of the file or element you want to transfer. This must be a valid file name for the host on which the file resides. This field is required. For more information about specifying file names, see Section 1.
Destination Host:	The name of the host to which you are transferring the file or element. Use 1 to 24 alphanumeric characters. For more information about specifying host-ids, see Section 1.
*Destination File Name:	The name of the file or element to which you are copying. This must be a valid file name for the host on which the file resides. This field is required. For more information about specifying file names, see Section 1.
Type:	**Subfield** — **Description** SYM — Transfers a symbolic element in the sending file to the receiving file at the local or a remote host. The default is SYM. All — Transfers the entire file. This is the fastest way to transfer a file. Do not specify an element name with Type=All. Omn — Transfers an omnibus element in the sending file to the receiving file at the local or a remote host.

continued

Table 3-16. TRANSFER Screen Fields (cont.)

Field	Description	
Type: (continued)	**Subfield**	**Description**
	Sdf	Transfers an SDF file or program element as 8-bit binary data (the 9th bit of each byte is meaningless and ignored). All file control information is also ignored (not transferred). This is useful when the data portion of the file or element is usable on the other host. TAS uses SDF input/output to access the file or element. This type is not supported for transfers between OS 2200 hosts.
	low	Transfers a file or omnibus program element as 8-bit binary data. • For a source file, the 9th (high-order) bit of the bytes in the last written track of the file is used to determine the end of file. The first byte (in the last written track) with the 9th bit on indicates no more data is to be transferred. In the tracks preceding the last written track, the 9th bit of each byte is meaningless and ignored. • For a destination file, each eight bits of incoming data are stored in a byte with the 9th bit off (zero). When the last eight bits are stored, the next byte is set to octal '400' (9th bit on) to indicate the end of file. This is useful when the data portion of the file or element is usable on the other host. TAS uses ERIOW$ to access the file or element. This type is not supported for transfers between OS 2200 hosts.
Max Record Size:	Indicates the largest number of bytes to be passed as a message to DDP-PPC when the Structure field is specified as Record. The default value, 3968 bytes is strongly recommended. Use 1 to 5 digits. The maximum value is 7168 bytes. The default is 3968 bytes.	

continued

Table 3-16. TRANSFER Screen Fields (cont.)

Field	Description	
Translate:	**Subfield**	**Description**
	Transparent	Use Transparent when the data type is something other than ASCII or EBCDIC. Use for binary, floating point or control characters. Use this option when you transfer an entire program file. TAS performs no translation in the transmission file. The default is: • Transparent when you transfer an entire program file or SDF file • Ascii when you transfer a symbolic element
	Ascii	ASCII is the most efficient data type between OS 2200 hosts. The default is: • Ascii when you transfer a symbolic element • Transparent when you transfer an entire program file or SDF file
	Ebcdic	Translates the file to 8-bit EBCDIC code during the transfer.
	L36	Use this option to alert a remote host that the local byte size of the transferred binary data is 36 bits. L36 is only meaningful to a remote host (non-OS 2200) that needs to know that the local byte size is 36 bits.
Position:	**Subfield**	**Description**
	REPLACE	Replaces the file on the destination host with the file or element you are transferring. The default is REPLACE.
	Add	Adds the file you are sending to the end of the existing file, or inserts the element you are sending into the receiving file. When you name an element that duplicates an existing element in the receiving file, the FILE transfer facility marks the existing element for deletion and replaces it with the new one.

continued

Table 3-16. TRANSFER Screen Fields (cont.)

Field	Description	
Mode:	**Subfield**	**Description**
	STREAM	Use this mode to transfer data in a stream. This is the most efficient transfer mode between OS 2200 hosts. The default is STREAM. You cannot specify a checkpoint file when MODE=STREAM.
	Block	Sends data as a series of blocks preceded by a header. Use this mode for hosts whose internal file structure is block-oriented or when block structure is more efficient for a host.
	Compressed	Use this mode when transferring data that contains numerous replications of fillers, such as program files. This mode is not supported for transfers between OS 2200 hosts.
Checkpoint mark:	Specifies how often you want the file transfer facility to write checkpoint-ids (checkpoint markers) in the checkpoint file. This field is meaningful only if all of the following are true: • The sending file is on your local host • The checkpoint file name is specified • The mode specified for this transfer is not STREAM The default is every 250 tracks. For more information on checkpointing, see Section 1.	
Siteinfo:	Gives information not included in the TAS FTP protocol commands. Only certain foreign hosts use site information. The FTP protocol must be included in the information. See the FSITE screen for more details about this field.	

continued

Table 3-16. TRANSFER Screen Fields (cont.)

Field	Description	
Structure:	**Subfield**	**Description**
	FILE	Transfers the file contiguously. This is the most efficient structure when transferring between OS 2200 hosts. When you use FILE when transferring an entire file, file control information associated with an OS 2200 SDF file is transmitted to the remote host. This can make the file unreadable to a non-OS 2200 host, although the file becomes readable when returned to the originating OS 2200 host. The default is FILE.
	Record	Transfers the file in sequential record format. Use this structure when the destination host's file structure is record-oriented. The file transfer facility includes record trailers during transmission. Use this option when you transfer data to a non-OS 2200 host with a file structure that may be incompatible with OS 2200 file formats. Structure=Record transmits only the data portion in a record-oriented file or element (such as an SDF file or symbolic element). This data is readable on any host.
Checkpoint file name:	The name of the file that contains a record of the transfer commands and options and that records checkpoint-ids throughout a transfer. You must specify a checkpoint file name to use the RESUME screen. The RESUME screen lets you restart a file transfer that abnormally terminates. You cannot specify a checkpoint file if STREAM is specified for the mode field. This must be a valid OS 2200 file name.	

continued

Table 3-16. TRANSFER Screen Fields (cont.)

Field	Description	
1 (Source):	**Subfield**	**Description**
	Userid	The user identifier for the source host. Use 1 to 12 alphanumeric characters. This field is required when the file resides on a remote host. This field is required when the file resides on your local host and has read/write keys or has a USE-name attached to it. The default is your user-id on your local host.
	Password	The password for the source host. Use 1 to 18 alphanumeric characters. This field is generally required when the file is on a remote host. This field is required when the file resides on your local host and has read/write keys or has a USE-name attached to it. The default is blank characters.
	Level	The clearance level for the source host. Enter a number between 0 and 63.
	Account	The account number for the source host. Use 1 to 12 alphanumeric characters.
	Project	The project-id for the source host. Use 1 to 12 alphanumeric characters. This field may or may not be required when the file resides on a remote host. This field may be required if your user-id is prompted for a project-id. The default depends on your user-id's registration with the Exec.

continued

Table 3-16. TRANSFER Screen Fields (cont.)

Field	Description	
2 (Dest):	**Subfield**	**Description**
	Userid	The user identifier for the destination host. Use 1 to 12 alphanumeric characters. This field is required when the file resides on a remote host. This field is required when the file resides on your local host and the file has read/write keys or has a USE-name attached to it. The default is your user-id on your local host.
	Password	The password for the destination host. Use 1 to 18 alphanumeric characters. This field is generally required when the file resides on a remote host. This field is required when the file resides on your local host and the file has read/write keys or has a USE-name attached to it. The default is blank characters.
	Level	The clearance level for the destination host. Enter a number between 0 and 63.
	Account	The account number for the destination host. Use 1 to 12 alphanumeric characters. The default is your account number on your local host.
	Project	The project-id for the destination host. Use 1 to 12 alphanumeric characters. This field may or may not be required when the file resides on a remote host. This field may be required if your user-id is prompted for a project-id. The default is determined by your user-id's registration with the Exec.

3.19.1. Transferring a File or Element (within a Local Host)

Procedure

To transfer a file or element within a local host:

1. Display the TRANSFER screen from the MAIN MENU or from any other command screen.
2. Enter the file name or file name and element name in the Source File Name field.
3. Enter the file name or file name and element name in the Destination File Name field.
4. Enter a password in the Source password field if the file has read/write keys.
5. Enter a password in the Dest password field if the file has read/write keys.
6. If you want to include additional file transfer information (for example, defining the file type), see "Including More Specific Information about a File Transfer," later in this section.
7. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-16 for additional help with field values.

Example

Example 3-29 shows how to transfer an element within the local host.

```
FTP 6R1                          TRANSFER                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      ____________________________      *Source File Name:
SYMELEMENTS.SYMA
 Destination Host: ____________________________      *Destination File Name:
SQA*SYMELEMENTS.SYMB

Type: SYM _  All _   Omn _   Sdf _   Iow _              Max Record Size: _____
Translate: Transparent _  Ascii _   Ebcdic _  L36 _
Mode: STREAM _   Block _  Compressed _                   Position: REPLACE _  Add _
Structure: FILE _   Record _                             Checkpoint mark: _____
Checkpoint file name: ____________________________________________
                Userid          Password       Level   Account       Project
 (Source) : {____________} {____________________} __   ____________  _________
 (Dest)   : {____________} {____________________} __   ____________  _________
Siteinfo: ____________________________________________________________________
_____________________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-29. Transferring an Element (within the Local Host) Using the TRANSFER Screen

3.19.2. Transferring a File or Element (Local to Remote)

Procedure

To transfer a file or element from the local host to a remote host:

1. Display the TRANSFER screen from the MAIN MENU or from any other command screen.
2. Enter the sending file name (or file name and element name) in the Source File Name field.
3. Enter the identifier of the destination host in the Destination Host field.
4. Enter the receiving file name (or file name and element name) in the Destination File Name field.
5. Enter a user-id in the source (1) Userid field if your local user-id is not valid for the source host.
6. Enter a user-id in the destination (2) Userid field if your local user-id is not valid for the destination host.
7. Enter a password in the destination (2) Password field.
8. Enter an account number in the source (1) Account field if your local account information is not valid for the source host.
9. Enter an account number in the destination (2) Account field if your local account information is not valid for the destination host.
10. Enter a project identifier in the source (1) Project field if you do not want to use the default.
11. Enter a project identifier in the destination (2) Project field if you do not want to use the default.
12. If you want to include additional file transfer information (for example, defining the file type), see the section on "Including More Specific Information About a File Transfer," later in this section.
13. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-16 for additional help with field values.

Example

Example 3-30 shows how to transfer a file from the local host to a remote host.

```
FTP 6R1                          TRANSFER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      ____________________________      *Source File Name:
SDFFILE._____________________________________________________________________
 Destination Host: 4-3-0-3_____________________      *Destination File Name:
SDFFILE._____________________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _             Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic _  L36 _
Mode: STREAM   Block _ Compressed _                  Position: REPLACE _  Add _
Structure: FILE _  Record _                          Checkpoint mark: _____
Checkpoint file name: ____________________________________________________
               Userid          Password       Level   Account       Project
 (Source) : {____________} {____________________} _   ____________  ________
 (Dest)   : {SITFJB______} {DAS_________________} 2_   6963828_____  DDN_____
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-30. Transferring a File (Local to Remote) Using the TRANSFER Screen

3.19.3. Transferring a File or Element (Remote to Local)

Procedure

To transfer a file or element from a remote host to the local host:

1. Display the TRANSFER screen from the MAIN MENU or from any other command screen.
2. Enter the identifier of the source host in the Source Host field.
3. Enter the sending file name or file name and element name in the Source File Name field.
4. Enter the receiving file name or file name and element name in the Destination File Name field.
5. Enter a user-id in the source (1) Userid field if your local user-id is not valid for the source host.
6. Enter a user-id in the destination (2) Userid field if your local user-id is not valid for the destination host.
7. Enter a password in the Source (1) Password field.
8. Enter an account number in the Source (1) Account field if you local account information is not valid for the source host.
9. Enter an account number in the destination (2) Account field if your local account information is not valid for the destination host.

10. Enter a project identifier in the source (1) Project field if you do not want to use the default.
11. Enter a project identifier in the Dest Project field if you do not want to use the default.
12. If you want to include additional file transfer information (for example, defining the file type), see "Including More Specific Information about a File Transfer," later in this section.
13. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-16 for additional information about field values.

Example

Example 3-31 shows how to transfer an element from a remote host to the local host.

```
FTP 6R1                          TRANSFER                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      4-3-0-3_________________      *Source File Name:
SYMELEMENTS.SYM_____________________________________________________________
 Destination Host: _____________________      *Destination File Name:
SYMELEMENTS.SYM_____________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _             Max Record Size: _____
Translate: Transparent _  Ascii _  Ebcdic _  L36 _
Mode: STREAM    Block _  Compressed _               Position: REPLACE _  Add _
Structure: FILE _  Record _                         Checkpoint mark: _____
Checkpoint file name: ______________________________________________________
               Userid          Password       Level    Account      Project
 (Source) : {BCNET1_____} {SNS_____________} __   ___________   __________
 (Dest)   : {___________} {________________} __   ___________   __________
Siteinfo: ___________________________________________________________________
_____________________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-31. Transferring an Element (Remote to Local) Using the TRANSFER Screen

3.19.4. Transferring a File or Element (between Remote Hosts)

Procedure

To transfer a file or element between remote hosts:

1. Display the TRANSFER screen from the MAIN MENU or from any other command screen.

2. Enter the identifier of the source host in the Source Host field.
3. Enter the sending file name (or file name and element name) in the Source File Name field.
4. Enter the identifier of the destination host in the Destination Host field.
5. Enter the receiving file name (or file name and element name) in the Destination File Name field.
6. Enter a user-id in the source (1) Userid field if your local user-id is not appropriate for the source host.
7. Enter a user-id in the destination (2) Userid field if your local user-id is not valid for the destination host.
8. Enter a password in the source (1) Password field.
9. Enter a password in the destination (2) Password field.
10. Enter an account number in the source (1) Account field if your local account information is not valid for the source host.
11. Enter an account number in the destination (2) Account field if your local account information is not valid for the destination host.
12. Enter a project identifier in the Source Project field if you do not want to use the default.
13. Enter a project identifier in the Dest Project field if you do not want to use the default.
14. If you want to include additional file transfer information (for example, defining the file type), see "Including More Specific Information About a File Transfer," later in this section.
15. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-16 for additional information about field values.

Example

Example 3-32 shows how to transfer a file between remote hosts.

```
FTP 6R1                          TRANSFER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      HOSTA_____________________      *Source File Name:
SDFFILE._____________________________________________________________________
 Destination Host: UCLA-SCI_________________      *Destination File Name:
SDFFILE._____________________________________________________________________

Type: SYM __ All __  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic _  L36 _
Mode: STREAM    Block _ Compressed _                Position: REPLACE _  Add _
Structure: FILE _  Record _                         Checkpoint mark: _____
Checkpoint file name: ____________________________________________________
               Userid          Password       Level   Account      Project
 (Source) : {BCNET1_____} {SNS_____________} 10   ST-103_____   COMMS_____
 (Dest)   : {FTPSL______} {PSK_____________} 20   SB-101_____   DDN_______
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-32. Transferring a File (between Remote Hosts) Using the TRANSFER Screen

3.19.5. Including More Specific Information about a File Transfer

When you know the characteristics of the source and destination hosts, you can:

- Enter additional fields on the TRANSFER screen to include more specific file transfer information
- Transfer a file more efficiently

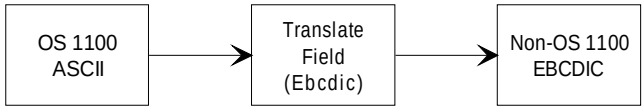
On the TRANSFER screen, you can also:

- Define the sending file or element type (Type field)
- Define maximum record length in the transmission file (Max Record Size field)
- Identify data representation in the transmission file (Translate field)
- Place or replace data in the receiving file (Position field)
- Define transmission data (Mode field)
- Identify the frequency with which checkpoint markers are to be passed (Checkpoint mark field)
- Define data structure in the transmission file (Structure field)
- Create a checkpoint file (Checkpoint file name field)
- Specify information not included in the FTP protocol commands requested by a foreign host (siteinfo field)

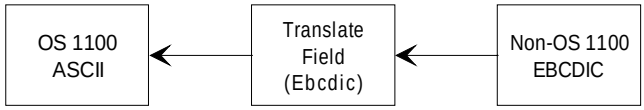
There is a default value for each field. The default represents the most efficient transfer of data between two OS 2200 hosts.

Include the same field values when you retrieve a file from a host as when you first sent the file.

For example, when you transfer a data file between your OS 2200 host that uses ASCII data representation and a foreign host that uses EBCDIC representation, choose EBCDIC for the Translate field. This causes the data to be translated from ASCII to EBCDIC.



When you retrieve the file from the other host to your OS 2200 host, specifying EBCDIC results in translation of the data from EBCDIC to ASCII.



Procedure

On the TRANSFER screen, enter all of the required information for the particular type of transfer you want to perform. (See previous subsections.)Enter any or all of the following additional information:

1. In the Type field, enter the type of file or element you want to transfer if you do not want to use the default, SYM.
2. In the Max Record Size field, specify the largest number of bytes to be passed as a message to DDP-PPC when the Structure field is specified as Record. The default, 3,968 bytes, is strongly recommended.
3. In the Translate field, identify how data is represented in the transmission file if you do not want to use the default, Transparent.
4. In the Position field, indicate that you want to add to an existing file, if you do not want to use the default, REPLACE.
5. In the Mode field, indicate how you want to transmit data if you do not want to use the default, STREAM.
6. In the Checkpoint mark field, specify how often you want checkpoint markers written in the checkpoint file if you do not want to use the default, every 250 tracks.
7. In the Structure field, indicate how you want to transmit data if you do not want to use the default, FILE.

8. In the Checkpoint file name field, enter the name of a checkpoint file. You must enter a checkpoint file name now to be able to later use the RESUME screen to recover a file transfer.
9. In the Siteinfo field, specify the information requested by the foreign host site.
10. Transmit the screen.

The file transfer facility then displays a completion message at the bottom of the screen.

See Table 3-16 for additional information about field values.

Examples

Example 3-33 shows how to transfer an omnibus element within the local host.

```
FTP 6R1                          TRANSFER                              97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:       _______________________        *Source File Name:
OMNELEMENTS.OMN1_____________________________________________________________
 Destination Host: _______________________        *Destination File Name:
OMNELEMENTS.OMN2_____________________________________________________________

Type: SYM _  All _  Omn x  Sdf _  Iow _             Max Record Size: _____
Translate: Transparent x  Ascii _  Ebcdic _  L36 _
Mode: STREAM    Block _  Compressed _               Position: REPLACE _  Add _
Structure: FILE x  Record _                         Checkpoint mark: _____
Checkpoint file name: ____________________________________________________
               Userid          Password       Level   Account      Project
 (Source) : {___________} {__________________} __   ___________  ___________
 (Dest)   : {___________} {__________________} __   ___________  ___________
Siteinfo: ___________________________________________________________________
_____________________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-33. Transferring an Omnibus Element within the Local Host Using the TRANSFER Screen

In this example, you can leave the Translate and Structure fields blank because TRANSPARENT and FILE are the defaults.

Example 3-34 shows how to transfer a symbolic element from a remote host to a local host.

```
FTP 6R1                          TRANSFER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      4-3-0-3_________________      *Source File Name:
SYMELEMENTS.SYM2_____________________________________________________________
 Destination Host: _____________________      *Destination File Name:
SYMELEMENTS.SYM1_____________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii x  Ebcdic _  L36 _
Mode: STREAM   Block _ Compressed _                Position: REPLACE _  Add _
Structure: FILE _  Record x                        Checkpoint mark: _____
Checkpoint file name: ____________________________________________
               Userid          Password         Level    Account      Project
 (Source) : {___________} {_________________}    __   ___________   ________
 (Dest)   : {___________} {_________________}    __   ___________   ________
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-34. Transferring a Symbolic Element from a Remote Host to the Local Host Using the TRANSFER Screen

Example 3-35 transfers a symbolic file containing data in EBCDIC code from the local host to a remote host.

```
FTP 6R1                          TRANSFER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      _____________________      *Source File Name:
SDFFILE._____________________________________________________________________
 Destination Host: 4-3-0-3_________________      *Destination File Name:
SDFFILE1._____________________________________________________________________

Type: SYM _  All _  Omn _  Sdf _  Iow _            Max Record Size: _____
Translate: Transparent _ Ascii _  Ebcdic x  L36 _
Mode: STREAM   Block _ Compressed _                Position: REPLACE _  Add _
Structure: FILE _  Record x                        Checkpoint mark: _____
Checkpoint file name: ____________________________________________
Siteinfo: ___________________________________________________________________
_____________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-35. Transferring a File Containing EBCDIC Code from the Local Host to a Remote Host Using the TRANSFER Screen

Example 3-36 transfers a local file to a remote file as sequential records.

```
FTP 6R1                          TRANSFER                          97/08/30

  F1-Help < >  F2-Refresh < >  F3-Exit < >  F4-Main Menu < >    Command __ < >

 Source Host:      ____________________________      *Source File Name:
FILE1._____________________________________________________________________
 Destination Host: 4-3-0-3_____________________      *Destination File Name:
FILE1._____________________________________________________________________

Type: SYM __ All __ Omn _ Sdf __ Iow _              Max Record Size: _____
Translate: Transparent _ Ascii x  Ebcdic _  L36 _
Mode: STREAM    Block _ Compressed _                Position: REPLACE _  Add _
Structure: FILE _  Record x                         Checkpoint mark: _____
Checkpoint file name: ____________________________________________________
                Userid          Password        Level  Account     Project
 (Source) : {BCNET1_____} {SNS_______________}    __   ________   ___________
 (Dest)   : {SITEJB_____} {DAS_______________}    __   ________   ___________
Siteinfo: ________________________________________________________________
_____________________________________________________Accept Data < >

FTP5095 Command completed successfully.
```

Example 3-36. Transferring a Local File to a Remote File as Sequential Records

3.19.6. File Transfer Guidelines

Use the following guidelines to help you determine which field values to specify on the TRANSFER, GET, and PUT screens. Sample transfer situations follow this information.

Guidelines for All Types of Transfers

For all types of transfers, follow these guidelines:

- Know what types of hosts are involved in a transfer.

  TAS recognizes the types of hosts (OS 2200 versus foreign host) involved in a file transfer, and transfers a file according to this information.

- Know the level of FTP implementation for each host. (See the FHELP screen or command.)

  Different remote hosts may implement file transfer in different ways. For example, many implementations do not accept record structure (STRUCTURE=RECORD).

- You may want to transfer a file to a host for temporary storage. That is, the file is not used on the destination host, only stored and returned later to the original host. Specify STRUCTURE=FILE and TRANSLATE=TRANSPARENT. If TAS is acting as the server for the transfer, the user on the remote host should specify whatever parameters that system requires to cause the FTP protocol commands "STRU F" and TYPE I" to be sent.

- Specify a checkpoint mark only when:
  - You specify a checkpoint file name
  - The sending file is on your local host
- Do not specify a checkpoint file name when you specify MODE=STREAM.

Guidelines for Transfers between OS 2200 Hosts

When you transfer a file between OS 2200 hosts, follow these guidelines:

- Use STRUCTURE=FILE for the fastest transfer.
- When using the Position field:
  - Do not replace an element with a file.
  - Add only elements to a program file.
  - When you add an element, you must specify an element name in both the source file name field and the destination file name field.
  - Do not add data to an element.
  - Do not add data to an SDF file.
  - Do not specify SDF or IOW for TYPE
  - Do not specify MODE=COMPRESSED.

Guidelines for Transfers Involving Foreign Hosts

When you transfer a file involving a foreign host, follow these guidelines:

- Many foreign hosts only support file structure (STRUCTURE=FILE). They do not support record structure. When you transfer ASCII data files to and from these foreign hosts, specify TRANSLATE=ASCII and STRUCTURE=FILE.

  When the sending file is on your local host, TAS does not send the file control information. TAS appends a carriage return/line feed (CRLF) sequence at the end of each data image before sending it to the foreign host.

  When the receiving file is on your local host, TAS strips off the CRLF sequences before storing the data in your local file.

  Specifying TRANSLATE=EBCDIC and STRUCTURE=FILE will have the same results as specifying TRANSLATE=ASCII and STRUCTURE=FILE, with the added EBCDIC-to-ASCII or ASCII-to-EBCDIC conversion. Acting as the server, TAS performs this same processing if FTP protocol commands "TYPE A" or "TYPE E" and "STRU R" are received from a foreign host.
- When you transfer an OS 2200 binary data file to a foreign host for processing purposes, you have these options:
  - You may want TAS to inform the foreign host that you sent the file from a 36-bit word-oriented host using the "TYPE L 36" command.

To cause TAS to send the FTP protocol command "TYPE L 36," specify STRUCTURE=FILE and TRANSLATE=L36.

Note that many foreign hosts do not accept the "TYPE L" protocol, and other foreign hosts accept "TYPE L", but cannot convert the data for processing.

- If the file contains 8-bit binary data in 9-bit bytes (the 9th bit of each byte is meaningless and is not transferred), you have two options:
  - If the data resides in an SDF file or program element, you can specify TRANSLATE=TRANSPARENT, STRUCTURE=FILE and TYPE=SDF. In this case, TAS does not transfer any file control information, and sends FTP protocol, "TYPE I".
  - If the data resides in a non-SDF file, specify TRANSLATE=TRANSPARENT, STRUCTURE=FILE and TYPE=IOW. TAS sends FTP protocol, "TYPE I"

- When you specify TRANSLATE=EBCDIC, TAS, acting as the initiator, will convert the data from ASCII to EBCDIC when your local host is the source host, and from EBCDIC to ASCII when your local host is the destination host. TAS does this conversion when acting as the server, if "TYPE E" FTP protocol is received.
- Use MODE=COMPRESSED with discretion, as it requires additional TAS processing. Use this mode only when the file you transfer contains large numbers of replicated characters (for example, ASCII spaces or binary zeros). Also, the file transfer is rejected when the remote host does not support compression (FTP protocol "MODE C").

Acceptable Parameter Combinations

Table 3-17 shows acceptable combinations for specifying the Type, Translate, and Structure fields on the TRANSFER, Get, and PUT screens.In the table, the first column indicates the type of file or element you want to transfer. The remaining columns indicate the possible combination of values you can specify for the Type, Translate, and Structure fields.

Table 3-17. Guidelines for Using the Type, Translate, and Structure Fields

File or Element Transferred	Type	Translate	Structure
SDF file	Sym All Iow[1] Sdf[1]	ASCII or EBCDIC Transparent or L36 Transparent Transparent	File or Record File File File
Program file	All	Transparent or L36	File
Symbolic Element	Sym Sdf[1 2]	ASCII or EBCDIC Transparent	File or Record File

continued

Table 3-17. Guidelines for Using the Type, Translate, and Structure Fields (cont.)

File or Element Transferred	Type	Translate	Structure
Omnibus Element	Omn Sdf[1] [2] Iow[1]	Transparent or L36 Transparent Transparent	File or Record File File

[1]Only 8 bits of each byte is transferred. See Table 3-16for a description of TYPE=SDF and TYPE=IOW.

[2]TAS looks for an omnibus element first. If not found, it then looks for a symbolic element.

3.19.7. Sample File Transfer Situations

Table 3-18 shows various sample transfer situations. Use these samples to help you determine recommended field values for different types of transfers.

Table 3-18 includes:

- Type of file or element to be transferred
- Types of hosts involved in the transfer
- Purpose of the transfer
- Recommended field values to specify on the TRANSFER screen

When a foreign host is involved, we include the FTP protocol commands that TAS receives when the transfer is initiated by the other host.

Note: *For these samples, the local host is an OS 2200 host with TAS installed.*

Table 3-18. Sample File Transfer Situations

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
Program file	OS 2200 to OS 2200	Use on destination host	STRUCTURE=FILE TRANSLATE=TRANSPARENT
SDF data file (containing ASCII characters)	OS 2200 to OS 2200	Use on destination host	STRUCTURE=FILE TRANSLATE=TRANSPARENT
Print file	OS 2200 to OS 2200	Print on destination host	STRUCTURE=FILE TRANSLATE=TRANSPARENT

continued

Table 3-18. Sample File Transfer Situations (cont.)

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
Absolute element	OS 2200 to OS 2200	Use on destination host	1. Copy the absolute element to an empty program file on your local host 2. Transfer that file to the destination host using: STRUCTURE=FILE TRANSLATE=TRANSPARENT
ASCII symbolic element	OS 2200 to OS 2200	Add to existing program file on destination host	STRUCTURE=RECORD TRANSLATE=ASCII POSITION=ADD
Omnibus element	OS 2200 to OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=TRANSPARENT TYPE=OMNIBUS
ASCII file	Non-OS 2200 to OS 2200	Temporary storage (to be returned to foreign host)	STRUCTURE=RECORD TRANSLATE=ASCII When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=ASCII When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE A or STRU F and TYPE A. Use the same procedure to transfer the file back to the foreign host.
Program file	OS 2200 to non-OS 2200	Temporary storage (to be returned to local host)	STRUCTURE=FILE TRANSLATE=TRANSPARENT When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU F and TYPE I.

continued

Table 3-18. Sample File Transfer Situations (cont.)

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
ASCII data file	OS 2200 to non-OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=ASCII When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=ASCII When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE A or STRU F and TYPE A.
ASCII symbolic element	OS 2200 to non-OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=ASCII When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=ASCII When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE A or STRU F and TYPE A.
Binary file	OS 2200 to non-OS 2200	Temporary storage (to be returned to local host)	STRUCTURE=FILE TRANSLATE=TRANSPARENT When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU F and TYPE I. Use the same values to retrieve the file.
Omnibus element	OS 2200 to non-OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=TRANSPARENT TYPE=OMNIBUS When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE I.

continued

Table 3-18. Sample File Transfer Situations (cont.)

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
EBCDIC data file	Non-OS 2200 to OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=EBCDIC When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=EBCDIC When the transfer is initiated on the foreign host, the FTP protocol commands should be STRU R and TYPE E or STRU F and TYPE E. The data in the file will be converted by TAS from EBCDIC to ASCII character format.
Binary file of 8-bit data	OS 2200 to non-OS 2200 or Non-OS 2200 to OS 2200	Possible use on destination host	TRANSLATE=TRANSPARENT When the data for the OS 2200 host comes from or goes to a file that you will access via ER IOW$, specify TYPE=IOW. When the data for the OS 2200 host comes from or goes to an SDF data file or an SDF program element, specify TYPE=SDF.

Section 4
Getting Started with the Command Interface

4.1. Starting and Ending

Obtain the following information before you begin your first session:

- Format type to specify host-ids (See Section 1)
- Log-on procedure in use at your site
- Sign-off procedure in use at your site

4.1.1. Starting Up

The command interface operates in an Interactive Processing Facility (IPF 1100) environment. You must enter IPF 1100 before you issue any file transfer commands.To begin:

1. Log on to the local host using your site-specific procedure
2. Type @IPF, and transmit the command

IPF 1100 displays the following information:

- Current level of IPF 1100
- Date
- Time
- Start-of-entry symbol (▶ ~C~▶)

Example 4-1 shows how to begin.

```
@IPF
▶IPF 1100 6R1 04/11/94 11:50:20
▶ ~C~▶
```

Example 4-1. Starting the Command Interface

Once you enter IPF 1100, you can enter any file transfer command next to the start-of-entry symbol. For example:

```
▸ ~C~▸FHELP
```

4.1.2. Ending

When you finish entering file transfer and IPF 1100 commands, close the session if the session is currently open (LOGOUT), and exit IPF 1100 (LOGOFF).

Note: *If you issue a command which establishes a session with a remote host and leaves the session open, you must issue a LOGOUT command before you issue a LOGOFF command. A dump results otherwise.*

To do so, enter LOGOUT followed by LOGOFF next to the start-of-entry symbols. For example:

```
▸ ~C~▸LOGOUT
```

```
▸ ~C~▸LOGOFF
```

You receive the following message:

```
▸END IPF
```

4.2. Using the Command Interface

4.2.1. Setting the Command Complete Message Function

Normally when you enter a command, IPF 1100 displays the next start-of-entry symbol to indicate command processing is complete.

Optionally, you can request IPF 1100 to display the following completion message to indicate command processing is complete:

```
**END COMMAND
```

Requesting Command Completion Messages

Example 4-2 shows how to request display of the **END COMMAND message:

```
▸ ~C~▸SET $COMPLETIONS:=TRUE
▸**END COMMAND
▸ ~C~▸
```

Example 4-2. Requesting the **END COMMAND Message

Suppressing Command Completion Messages

Example 4-3 shows how to suppress the **END COMMAND message. IPF 1100 responds with a start-of-entry symbol.

```
▸ ~C~▸SET $COMPLETIONS:=FALSE
▸ ~C~▸
```

Example 4-3. Suppressing the **END COMMAND Message

4.2.2. Command Conventions

Table 4-1 explains the conventions we use to document the file transfer commands.

Table 4-1. Command Conventions

Convention	Example	Description
Uppercase	FILE=	Indicates a command or parameter that you must enter exactly as shown.
Lowercase	file-name-1	Indicates a variable you must define and enter.
Italics	*RESU*ME	Indicates an abbreviation you can use to enter a command or parameter.
[ ]	[AT=checkpoint-id]	Indicates an optional parameter. Omit the brackets when you enter the parameter.
|	*STRU*CTURE=**FILE** | RECORD	Indicates a choice of values from which you must select. In some cases, you can enter more than one value.
Bold	*STRU*CTURE=**FILE** | RECORD **LOGOFF**	In command formats, bold indicates a default value that the file transfer facility automatically enters. In examples, bold indicates a user entry.
Number after parameter	BYTES=integer 1	Indicates that you can use positional notation for this parameter and the required positional sequence.

Note: *Our production system does not permit both italics and bold for the same term. You can abbreviate the following values which are not in italics in the command formats: SYMBOLIC (SYMB), STREAM (STRE), and REPLACE (REPL).*

4.2.3. Parts of a Command

A file transfer command consists of:

- A verb
- One or more keyword parameters

Example 4-4 shows a sample command.

```
▸ ~C~▸TRANSFER  FROM=UCLA::SDFFILE.  TO=SD-01::SDFFILE.
```

Example 4-4. Sample File Transfer Command

A parameter can be required or optional. You can enter more than one parameter for some commands.

The command in Example 4-4 includes only two required parameters, however there are many optional parameters you can also specify.

4.2.4. Entering a Command

You can enter a command using either:

- Keyword syntax
- Positional notation
- A combination of keyword syntax and positional notation

Using Keyword Syntax

When you specify parameters using entire keyword syntax, you can place them in any order.

Example 4-5 shows how to use keywords to enter a TRANSFER command.

```
▸ ~C~▸TRANSFER  PASSWORD=SNS  FROM=UCLA::SDFFILE.  TO=SD-01::SDFFILE.
```

Example 4-5. Using Keyword Syntax to Enter a Command

Using Positional Notation

When you enter a command, you can omit the keyword portion (KEYWORD=) for certain parameters. This is called positional notation.

When you use positional notation, you must specify the parameters in the order in which they appear in the command.

Use commas to separate parameters in positional notation.

For help on when you can use positional notation, see "Summary of Commands and Parameters," later in this section.

Example 4-6 shows how to enter a command using positional notation. In this example, you can omit the keyword portions, FROM= and TO=, for the FROM and TO parameters.

```
▸ ~C~▸TRANSFER  UCLA::SDFFILE., SD-01::SDFFILE.
```

Example 4-6. Using Positional Notation to Enter a Command

Using a Combination of Keywords and Positional Notation

When you specify parameters using a combination of keywords and positional notation, parameters in positional notation must appear first.

Example 4-7 shows how to use keywords and positional notation to enter a TRANSFER command.

```
▸ ~C~▸TRANSFER  UCLA::SDFFILE., SD-01::SDFFILE.  ACCOUNT=6941XYZ  PASSWORD=SNS
```

Example 4-7. Using Keywords and Positional Notation to Enter a Command

Using More Than One Line to Enter a Command

When a command requires more than one line, use an ampersand (&) to continue the command on the next line. Use the ampersand after the last parameter specification on a line; do not insert an ampersand in the middle of a parameter specification.

Example 4-8 shows how to use more than one line to enter a command. When you transmit the first line, the continuation start-of-entry symbol (▸ ~C~&▸) appears for you to enter the next line of the command. For example:

```
▸ ~C~▸TRANSFER  UCLA::SDFFILE.  SD-01::SDFFILE.  ACCOUNT=6941XYZ  PASSWORD=SNS &
▸ ~C~&▸USER=(SITFJB,BBMET1)
```

Example 4-8. Using More Than One Line to Enter a Command

4.2.5. Transmitting a Command

Transmit each command that you enter. When you transmit a command, the file transfer facility displays the following message:

```
TAS 6R1
```

Because the file transfer facility operates in an open system, you can mix IPF 1100 commands with file transfer commands.

4.2.6. Command Processing

When you transmit a file transfer command, the local host software analyzes the command for correct syntax. If no errors occur, the local host either:

- Transmits the command to the hosts you specify in your command
- Processes the command when you do not specify a remote host

The processing of a file transfer command can involve extensive communications traffic and can require a few seconds to complete (several minutes for a large file).

When the local and remote hosts finish processing a command, you receive a completion message to indicate that the terminal is ready for another command.

4.2.7. Summary of Commands and Parameters

The following is a summary of file transfer commands and parameters. A number after a parameter indicates a positional parameter. Italics indicate allowable abbreviations for commands and parameters. If you need help with command conventions, see Table 4-1.

```
ALLOCATE          BYTES=integer  1
                  [RECORDS=integer]  2
                  [HOST=host-id]
                  [USERID=remote-user-id]
                  [PASSWORD=remote-password]
                  [ACCOUNT=remote-account-info]
CDUP              [HOST=host-id]
                  [USERID=remote-user-id]
                  [PASSWORD=remote-password]
                  [ACCOUNT=remote-account-info]
CWD               DIRECTORY=pathname  1
                  [HOST=host-id]
                  [USERID=remote-user-id]
                  [PASSWORD=remote-password]
                  [ACCOUNT=remote-account-info]
DEALLOCATE        FILE=[host-id::]file-name  1
                  [PASSWORD=remote-password]  2
                  [USERID=remote-user-id]
                  [CLEARANCE_LEVEL=clearance-level]
                  [ACCOUNT=remote-account-info]
DREGISTER         USERID=application-id
                  [FILE=file-name]
                  [WILD=wild-card-character]
                  [DREG_ALL=YES|NO]
```

```
FGET            FROM=file-name-1[element-name-1]  1
                TO=file-name-2[element-name-2]  2
                [PASSWORD=(remote-password-1[,remote-password-2])]  3
                [USERID=(remote-user-id-1[,remote-user-id-2])]
                [CLEARANCE_LEVEL-(clearance-level)]
                [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
                [TYPE=SYMBOLIC|ALL|OMNIBUS|SDF|SOURCE|IOW]
                TRANSLATE=ASCII|EBCDIC|TRANSPARENT|L36]
                [MODE=STREAM|BLOCK|COMPRESSED]
                [STRUCTURE=FILE|RECORD]
                [MAX_RECORD_SIZE=7168|integer]
                [POSITION=REPLACE|ADD]
                [CHECKPOINT=file-name-3]
                [MARK=250|integer]
                [SITEINFO=information]
FHELP           [HOST=host-id]  1
FPUT            FROM=file-name-1[element-name-1]  1
                TO=file-name-2[element-name-2]  2
                [PASSWORD=(remote-password-1[,remote-password-2])]  3
                [USERID=(remote-user-id-1[,remote-user-id-2])]
                [CLEARANCE_LEVEL=clearance level]
                [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
                [TYPE=SYMBOLIC|ALL|OMNIBUS|SDF|SOURCE|IOW]
                TRANSLATE=ASCII|EBCDIC|TRANSPARENT|L36]
                [MODE=STREAM|BLOCK|COMPRESSED]
                [STRUCTURE=FILE|RECORD]
                [MAX_RECORD_SIZE=7168|integer]
                [POSITION=REPLACE|ADD]
                [CHECKPOINT=file-name-3]
                [MARK=250|integer]
                [SITEINFO=information]
FREGISTER       USERID=application-id
                FILE=file-name
                RUN-runstream
                [OPTIONS=start-option]
                [WILD=wild-card-character]
                [ONE_TIME_REG=YES|NO]
                [CONTROL=controlvalue]
                [SAVE_STATUS=YES|NO
                [INITIATE=ADD|START]
FSITE           [HOST=hostid]  1
                INFORMATION=information  2
                [PASSWORD=remote-password]
                [USERID=remote-user-id]
                [ACCOUNT=remote-account-info]
FSTATUS         [USERID=application-id]
                [DREG-ENTRY=YES|NO]
LOGIN           HOST=host-id
                [PASSWORD=remote-password]
                [CLEARANCE_LEVEL=remote-clearance-level]
                [USERID=remote-user-id]
                [ACCOUNT=remote-account-info]
LOGOUT
MKD             DIRECTORY=pathname  1
                [HOST=host-id]
                [USERID=remote-user-id]
                [PASSWORD=remote-password]
                [ACCOUNT=remote-account-info]
PWD             [HOST=host-id]
                [USERID=remote-user-id]
                [PASSWORD=remote-password]
                [ACCOUNT=remote-account-info]
RMD             DIRECTORY=pathname  1
                [HOST=host-id]
                [USERID=remote-user-id]
                [PASSWORD=remote-password]
                [ACCOUNT=remote-account-info]
```

```
RENAME          [HOST=host-id]  1
                FROM=old-file-name  2
                TO=new-file-name  3
                [PASSWORD=remote-password]
                [USERID=remote-user-id]
                [ACCOUNT=remote-account-info]
RESUME          FILE=file-name  1
                [AT=checkpoint-id]  2
                [PASSWORD=(remote-password-1[,remote-password-2])]  3
                [CLEARANCE_LEVEL=(remote-clearance-level-1[,remote-
                     clearance-level-2])]
TRANSFER        FROM=[host-id-1::]file-name-1[.element-name-1]  1
                TO=[host-id-2::]file-name-2[.element-name-2]  2
                [PASSWORD=(remote-password-1[,remote-password-2])]  3
                [USERID=(remote-user-id-1[,remote-user-id-2])]
                [CLEARANCE_LEVEL-(clearance-level)]
                [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
                [TYPE=SYMBOLIC|ALL|OMNIBUS|SDF|SOURCE|IOW]
                TRANSLATE=ASCII|EBCDIC|TRANSPARENT|L36]
                [MODE=STREAM|BLOCK|COMPRESSED]
                [STRUCTURE=FILE|RECORD]
                [MAX_RECORD_SIZE=7168|integer]
                [POSITION=REPLACE|ADD]
                [CHECKPOINT=file-name-3]
                [MARK=250|integer]
                [SITEINFO=information]
```

4.3. Using On-Line Help for Commands

4.3.1. Types of Help Available

Four types of on-line help are available:

- Command help—describes the purpose of a command and how to execute it
- Parameter help—describes an individual parameter for a command
- Error message help—provides an explanation for a message you receive
- FHELP—provides a list of available functions implemented on a specified host

For more information about FHELP, see 5.3.

4.3.2. Accessing Command Help

Command help provides:

- A description of the command
- The command format

To receive help on a command:

1. Enter the name of the command followed by a question mark (?)
2. Transmit the command.

Example 4-9 shows how to access help for the DEALLOCATE command.

```
▸ ~C~▸DEALLOCATE?
▸The DEALLOCATE command allows you to delete a file on a remote host.
▸  The format of the DEALLOCATE command is:
▸      DEALLOCATE      FILE=[host-id::]file-name
▸                      [PASSWORD=remote-password]
▸                      [USERID=remote-userid]
▸                      [CLEARANCE_LEVEL=clearance-level]
▸                      [ACCOUNT=remote-acct-no]
▸ ~C~▸
```

Example 4-9. Accessing Help for a Command

In some cases, there may be more help available through additional messages. To receive any additional help messages:

1. Enter a question mark (?) next to the start-of-entry symbol.

2. Transmit the command.

```
▸ ~C~▸?
```

Continue to enter a question mark (?) and transmit to display the additional messages. When you reach the end of the message series, you receive the following message:

```
This completes the message series.  Type a ? to repeat the series.
```

4.3.3. Accessing Parameter Help

To access help for a parameter:

1. Enter the name of the command and the parameter followed by a question mark (?).
2. Transmit the command.

Example 4-10 shows how to access help for the FILE parameter.

```
▸ ~C~▸DEALLOCATE FILE=?
▸Keyword parameter FILE specifies the file you want to delete.  This is the
▸first positional notational parameter.
▸ ~C~▸
```

Example 4-10. Accessing Help for a Parameter

In some cases, there may be more help available through additional messages. To receive any additional help messages:

1. Enter a question mark (?) next to the start-of-entry symbol.
2. Transmit the command.

```
▸ ~C~▸?
```

Continue to enter a question mark (?) and transmit to display the additional messages. When you reach the end of the message series, you receive the following message:

```
This completes the message series.  Type a ? to repeat the series.
```

4.3.4. Accessing Error Message Help

To receive an explanation of an error message you receive:

1. Enter a question mark (?) next to the start-of-entry symbol.
2. Transmit the command.

Example 4-11 shows how to access help for an error message.

```
▸ ~C~▸TRANSFER FROM=26-3-0-3::OLDFIL.ELEMENT  TO=NEWFIL.ELEMENT
▸ ~C~▸PASSWORD=SNS  TYPE=ALL
▸**FTP835 You entered conflicting values for the FROM and TYPE
▸parameters of the TRANSFER command.
▸ ~C~▸?
▸If you specify an element to be transferred on the FROM, you must use
▸the TYPE parameter.  The value of the TYPE parameter may not be ALL.
▸ ~C~▸
```

Example 4-11. Accessing Help for an Error Message

In some cases, there may be more help available through additional messages. To receive any additional help messages:

1. Enter a question mark (?) next to the start-of-entry symbol.
2. Transmit the command.

```
▸ ~C~▸?
```

Continue to enter a question mark (?) and transmit to display the additional messages. When you reach the end of the message series, you receive the following message:

```
This completes the message series.  Type a ? to repeat the series.
```

Section 5
Using the Command Interface

5.1. File Transfer Commands

The following commands are covered in this section in alphabetical order:

- ALLOCATE
- CDUP
- CWD
- DEALLOCATE
- DREGISTER
- FGET
- FHELP
- FPUT
- FREGISTER
- FSITE
- FSTATUS
- LOGIN
- LOGOUT
- MKD
- PWD
- RMD
- RENAME
- RESUME
- TRANSFER

5.2. Reserving Storage on a Remote Host for the Transferred File (ALLOCATE Command)

Use the ALLOCATE command to reserve file storage space on a remote foreign host, if required by that host.

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Note: *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

Command Format

```
ALLOCATE          BYTES=integer  1
                  [RECORDS=integer]  2
                  [HOST=host-id]
                  [USERID=remote-user-id]
                  [PASSWORD=remote-password]
                  [ACCOUNT=remote-account-info]
```

Keyword Parameters

Table 5-1 describes the keyword parameters for the ALLOCATE command.

Table 5-1. ALLOCATE Command Keyword Parameter Descriptions

Parameter	Value	Description
BYTES=	integer	Specifies the maximum allowable file size in bytes for the file you want to transfer. Size requirements are defined by the remote host. This parameter is required even when you specify the RECORDS parameter.
RECORDS=	integer	Specifies the maximum allowable size in records of the file you want to transfer. Size requirements are defined by the remote host.

continued

Table 5-1. ALLOCATE Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
HOST=	host-id	The identifier of the host where you want to reserve file storage. Use 1 to 255 alphanumeric characters. If you omit the host-id, the host to which you are currently logged in is used. Specify a host-id if a session is not currently active or if you want to close the current session and open a session with another host. For more information about specifying host-ids, see Section 1.
*USER*ID=	remote-user-id	The user identifier, as required by the remote host. Use 1 to 12 alphanumeric characters.
*PASS*WORD=	remote-password	The password, as required by the remote host. Use 1 to 18 alphanumeric characters.
*ACCO*UNT=	remote-account-info	The account number, as required to access the directory on the remote host. Use 1 to 12 alphanumeric characters.

Example

Example 5-1 shows how to allocate 7168 bytes of storage for a file. A session is already established with the remote host.

```
▸ ~C~▸ALLO BYTES=7168
▸**FTP 257 Command processing successfully completed.
```

Example 5-1. Allocating a File on a Remote Foreign Host Using the ALLOCATE Command

5.3. Changing to the Parent Directory (CDUP Command)

Use the CDUP command to change from the current directory to the parent working directory on a remote foreign host.

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Note: *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

Command Format

```
CDUP            [HOST=host-id]
                [USERID=remote-user-id]
                [PASSWORD=remote-password]
                [ACCOUNT=remote-account-info]
```

Keyword Parameters

Table 5-2 describes the keyword parameters for the CDUP command.

Table 5-2. CDUP Command Keyword Parameter Descriptions

Parameter	Value	Description
HOST=	host-id	The identifier of the host where the directory you want to change is located. Use 1 to 255 alphanumeric characters. If you omit the host-id, the host to which you are currently logged in is used. Specify a host-id if a session is not currently active or if you want to close the current session and open a session with another host. For more information about specifying host-ids, see Section 1.
*USER*ID=	remote-user-id	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.
*PASS*WORD=	remote-password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.

continued

Table 5-2. CDUP Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*ACCO*UNT=	remote-account-info	The account number, as required to access the directory on the remote host. Use 1 to 12 alphanumeric characters.

Example

Example 5-2 shows how to change to the parent of the current working directory. A session is already established with the remote host.

```
▶ ~C~▶CDUP
▶**FTP 257 Command processing successfully completed.
```

Example 5-2. Changing to the Parent Directory Using the CDUP Command

5.4. Changing the Working Directory on a Remote Host (CWD Command)

Use the CWD command to change the working directory on a remote foreign host.

If you specify a host-id, any existing session is closed and a new session is opened.

Note: *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

Command Format

```
CWD               DIRECTORY=pathname  1
                   [HOST=host-id]
                   [USERID=remote-user-id]
                   [PASSWORD=remote-password]
                   [ACCOUNT=remote-account-info]
```

Keyword Parameters

Table 5-3 describes the keyword parameters for the CWD command.

Table 5-3. CWD Command Keyword Parameter Descriptions

Parameter	Value	Description
*DIR*ECTORY=	remote-pathname	The name of the path to be changed on the remote host. Use 1 to 132 alphanumeric characters. This parameter is required.
HOST=	host-id	The identifier of the host where the directory you want to change is located. Use 1 to 255 alphanumeric characters. If you omit the host-id, the host to which you are currently logged in is used. Specify a host-id if a session is not currently active or if you want to close the current session and open a session with another host. For more information about specifying host-ids, see Section 1.
*USER*ID=	remote-user-id	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.

continued

Table 5-3. CWD Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*PASS*WORD=	remote-password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.
*ACCO*UNT=	remote-account-info	The account number, as required to access the directory on the remote host. Use 1 to 12 alphanumeric characters.

Example

Example 5-3 shows how to change the current working directory. The full pathname is not required because D1 is a subdirectory under the same parent directory as the current directory.

```
▶ ~C~▶CWD D1
▶**FTP 257 Command processing successfully completed.
```

Example 5-3. Changing the Current Working Directory Using the CWD Command

5.5. Deleting a File (DEALLOCATE Command)

Use the DEALLOCATE command to delete a file on either a:

- Local host
- Remote host

When you delete a file you free space on a host for other users.

You delete one file each time you transmit this command.

Notes:

1. *You cannot use the DEALLOCATE command to delete a file element.*
2. *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Command Format

```
DEALLOCATE          FILE=[host-id::]file-name  1
                    [PASSWORD=remote-password]  2
                    [USERID=remote-user-id]
                    [CLEARANCE_LEVEL=clearance-level]
                    [ACCOUNT=remote-account-info]
```

You can omit the keyword portions, FILE= and PASSWORD=, when you use positional notation. Include the parameter values in this order.

Keyword Parameters

Table 5-4 describes the keyword parameters for the DEALLOCATE command.

Table 5-4. DEALLOCATE Command Keyword Parameter Descriptions

Parameter	Value	Description
FILE=	host-id	The host-id is the identifier of the host where the file resides. Do not use this field during an open session if you wish to communicate with the current host. If you enter a host name, the session is closed and a new session is opened to the specified host. When the command is done, the session remains open. For more information about specifying host-ids, see Section 1.
	file-name	The file name is the name of the file you want to delete. This must be a valid file name for the system on which the file resides. For more information about specifying fine names, see Section 1.
*PASS*WORD=	remote-password	The password, as required by the host where the file resides. This field is required when the file resides on a local host and the file has read/write keys. Use 1 to 18 alphanumeric characters.
*USER*ID=	remote-user-id	The user identifier, as required by the remote host. Use 1 to 12 alphanumeric characters.
CLEARANCE_LEVEL=	clearance-level	The clearance level, as required by the remote host. Use a number between 0 and 63.

continued

Table 5-4. DEALLOCATE Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*ACCO*UNT=	remote-account-info	For an OS 2200 host, account information includes the account number followed by the project-id. Use 1 to 25 alphanumeric characters. Use 1 to 12 alphanumeric characters to specify the account number, and 1 to 12 alphanumeric characters to specify the project-id. Use a space to separate the account number from the project-id. When you include a space, enclose the account information in double quotes. When you specify a project-id, it is passed to the remote host regardless of whether that host is an OS 2200 host. The account number associated with your run is always used for processing on your local host.

5.5.1. Deleting a File on a Local Host

Function

Use this format to delete a file on a local host. This example assumes that you are not currently in a session with a remote host.

Format

```
DEALLOCATE  FILE=file-name
```

See Table 5-4 for information about parameter values.

Example

Example 5-4 shows how to delete the file, SDFFILE1, from a local host. In this example we omit the keyword FILE because we are using positional notation.

Example 5-4. Deleting a File on a Local Host Using the DEALLOCATE Command (cont.)

```
▸ ~C~▸DEAL SDFFILE1
▸**END COMMAND
```

Example 5-4. Deleting a File on a Local Host Using the DEALLOCATE Command

5.5.2. Deleting a File on a Remote Host

Function

Use this format to delete a file on a remote host.

Format

```
DEALLOCATE        FILE=[host-id::]file-name  1
                  [PASSWORD=remote-password]  2
                  [USERID=remote-user-id]
                  [CLEARANCE_LEVEL=remote-clearance-level]
                  [ACCOUNT=remote-account-info]
```

See Table 5-4 for information about parameter values.

Example

Example 5-5 shows how to delete the file, NYCFILE, from a remote host. In this example we omit the keyword, FILE, because we are using positional notation. We specify a remote:

- Host-id, SD-01
- Password, SNS
- User-id, SITJFB
- Account information, ST-103 COMMS

```
▸ ~C~▸DEAL SD-01::NYCFILE  PASS=SNS  USER=SITFJB  ACCO="ST-103 COMMS"
▸**END COMMAND
```

Example 5-5. Deleting a File on a Remote Host Using the DEALLOCATE Command

5.6. Deregistering a Filename (DREGISTER Command)

Use the DREGISTER command to deregister a filename for event notification. When a filename is deregistered, TAS no larger starts a (user-defined) runstream when that file is received.

You can deregister a single filename or all the filenames for an application.

Command Format

```
DREGISTER          USERID=application-id
                   [FILE=file-name]
                   [WILD=wild-card-character]
                   [DREG_ALL=YES|NO]
```

Keyword Parameters

Table 5-5 describes the keyword parameters for the DREGISTER command.

Table 5-5. DREGISTER Command Keyword Parameter Descriptions

Parameter	Value	Description
USERID	application-id	This identifies the owner of the event notification record. This is a required field.
FILE	host-id	The name of the file that TAS should use to find the file name(s) to deregister. This must be a valid OS 2200 name. This identifier is not required if you want to deregister all the files registered to the specified application id.
WILD	wild-character	Specifies which character in the file name field TAS should replace with a wild card indicator when it creates the deregister file-id. Use only one character. The character must be one of the characters in the file name field excluding the file name separator characters such as comma, asterisk, parentheses, period, or slash.

continued

Table 5-5. DREGISTER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
DREG_ALL	YES	Indicates whether or not TAS should deregister all file name matches or just an exact match. YES If the file name field is not entered, then deregister all th associated with the specified application-ID. If a value is for the file name, then deregister all files associated with specified application-ID which also match teh file name. NO Deregister only the file specified in the file name field. The default is NO.

5.6.1. Deregistering a Single Filename

Function

Use this format to deregister a single filename from event notification.

Format

```
DREGISTER          USERID=application-id
                   [FILE=file-name]
```

See Table 5-5 for information about parameter values.

Example

Example 5-6 shows how to deregister a single filename.

```
▸ ~C~▸DREG USERid=ftpuser FILE=Qual*Filename.
▸**END COMMAND
```

Example 5-6. Deregistering a Single File

Note *See Section 3.6 for more information about deregistration.*

5.6.2. Deregistering All Filenames

Function

Use this format to deregister all filenames for an application or user.

Format

```
DREGISTER          USERID=application-id
                   [FILE=file-name]
                   [WILD=wild-card-character]
                   [DREG_ALL=YES|NO]
```

See Table 5-5 for information about parameter values.

Example

Example 5-7 shows how to deregister all filenames.

```
▶ ~C~▶DREG USERid=ftpuser DREG_ALL=YES
▶**END COMMAND
```

Example 5-7. Deregistering All Filenames

5.7. Getting a File during a Session (FGET command)

Use this command to transfer a file from a remote host (for which you have established a session) to your local host.

If you need to open a session, use the LOGIN command and then FGET.

Command Format

```
FGET            FROM=file-name-1[element-name-1]  1
                TO=file-name-2[element-name-2]  2
                [PASSWORD=(remote-password-1[,remote-password-2])]  3
                [USERID=(remote-user-id-1[,remote-user-id-2])]
                [CLEARANCE_LEVEL-(clearance-level)]
                [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
                [TYPE=SYMBOLIC|ALL|OMNIBUS|SDF|SOURCE|IOW]
                TRANSLATE=ASCII|EBCDIC|TRANSPARENT|L36]
                [MODE=STREAM|BLOCK|COMPRESSED]
                [STRUCTURE=FILE|RECORD]
                [MAX_RECORD_SIZE=7168|integer]
                [POSITION=REPLACE|ADD]
                [CHECKPOINT=file-name-3]
                [MARK=250|integer]
                [SITEINFO=information]
```

Keyword Parameters

Refer to the TRANSFER command for a description of the keyword parameters.

For more information, refer to:

- "Methods of Transferring Files" in 1.3 for a discussion of the differences between the GET/FGET and PUT/FPUT commands and the TRANSFER command.
- Susection 5.20, "Transferring a File," for more information about file transfers, keeping in mind that while using FGET you are only transferring in one direction and that a session is open between the two hosts.

5.8. Getting Help (FHELP Command)

FTP protocol implementations can include different functionality. For example, many implementations do not accept record structure (STRUCTURE=RECORD). Use the FHELP screen to list the available file transfer functions on a:

- Local host
- Remote host

You can also use the FHELP command to check the connection between the local host and another host in the network.

Command Format

```
FHELP  [HOST=host-id]  1
```

You can omit the keyword portion, HOST=, when you use positional notation.

Keyword Parameters

Table 5-6 describes the keyword parameters for the FHELP command.

Table 5-6. FHELP Command Keyword Parameter Description

Parameter	Value	Description
HOST=	host-id	The host-id is the identifier of the host where the file resides. If no session is established: • Omitting the host-id gives help for the local host. • Specifying a host-id causes a connection to be opened, the help information obtained, and the connection closed If a session is established, this parameter is not needed. If you enter a host-id, the session closes and a new session opens to the specified host. When the command completes, the session closes. Use 1 to 132 alphanumeric characters. For more information about specifying host-ids, see Section 1.

5.8.1. Listing Available Functions on a Local Host

Function

Use this format to list available functions on a local host.

Format

FHELP

Example

Example 5-8 shows how to list available functions on a local host.

```
~C~►FHELP
 TAS 6R1                        0603.1

           The Unisys TAS File Transfer processor provides a reliable
           and efficient means of sharing and transferring files between
           hosts in a TCP/IP network.

           This FTP implementation includes these functionalities
           and protocols:

                   *  login         - USER, PASS, ACCT
                   *  logout        - QUIT, REIN
                   *  transfer      - PORT, PASV, MODE, TYPE,
                                      STRU
                   *  information   - HELP
                   *  file action   - ALLO, REST, STOR, RETR,
                                      APPE, DELE, ABOR
                   *  miscellaneous - NOOP

           The File Transfer user commands are TRANSFER, DEALLOCATE,
           RESUME, FHELP, RENAME, FSITE, LOGIN, FGET, FPUT, FREGISTER,
           DREGISTER, FSTATUS, and LOGOUT.
```

Example 5-8. Listing Available Functions on a Local Host Using FHELP

5.8.2. Listing Available Functions on a Remote Host

Function

Use this format to list available functions on a remote host.

Format

FHELP HOST=host-id

See Table 5-6 for information about parameter values.

Example

Example 5-9 shows how to list available functions on remote host, SD-01.

```
▸ ~C~▸FHELP SD-01
▸
The AJAX Model 100 Operating System provides a file transfer
protocol (FTP) implementation that includes the basic set of
commands.  Specifically, the following commands are supported:

          USER         QUIT          PORT
          TYPE         MODE          STRU
          RETR         STOR          NOOP

Appropriate error messages are returned when commands other
than those listed above are attempted.
```

Example 5-9. Listing Available Functions on a Remote Host Using FHELP

5.9. Sending a File During a Session (FPUT Command)

Use the FPUT command to transfer a file to a remote host with which you already have a session open.

If you need to open a session, use LOGON and then FPUT.

Command Format

```
FPUT            FROM=file-name-1[element-name-1]  1
                TO=file-name-2[element-name-2]  2
                [PASSWORD=(remote-password-1[,remote-password-2])]  3
                [USERID=(remote-user-id-1[,remote-user-id-2])]
                [CLEARANCE_LEVEL=clearance leve]]
                [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
                [TYPE=SYMBOLIC|ALL|OMNIBUS|SDF|SOURCE|IOW]
                TRANSLATE=ASCII|EBCDIC|TRANSPARENT|L36]
                [MODE=STREAM|BLOCK|COMPRESSED]
                [STRUCTURE=FILE|RECORD]
                [MAX_RECORD_SIZE=7168|integer]
                [POSITION=REPLACE|ADD]
                [CHECKPOINT=file-name-3]
                [MARK=250|integer]
                [SITEINFO=information]
```

Keyword Parameters

Refer to the TRANSFER command for a description of the keyword parameters.For more information, refer to:

- "Methods of Transferring Files" in 1.3 for a discussion of the differences between the GET/FGET and PUT/FPUT commands and the TRANSFER command.
- Subsection 5.20, "Transferring a File," for more information about file transfers, keeping in mind that while using FPUT you are only transferring in one direction and that a session is open between the two hosts.

5.10. Registering a Filename (FREGISTER Command)

Use the FREGISTER command to register a filename for TAS event notification. When a filename is registered, TAS starts a user-defined runstream when the registered filename is received.You can:

- Register a single filename or a range of filenames.
- Use a wildcard character
- Specify start options for the user-defined runstream
- Specify whether to @START or @ADD the runstream
- Save file transfer completion status and the filename so that this information can be retrieved
- Specify that the filename be deregistered upon receipt

Command Format

```
FREGISTER          USERID=application-id
                   FILE=file-name
                   RUN-runstream
                   [OPTIONS=start-option]
                   [WILD=wild-card-character]
                   [ONE_TIME_REG=YES|NO]
                   [SAVE_STATUS=YES|NO
                   [CONTROL=CONTROL VALUE][INITIATE=ADD|START
```

You can omit the keyword portion, USERID=, FILE=, and RUN=, when you use positional notation. Include the parameter values in order.

Keyword Parameters

Table 5-7 describes the keyword parameters for the FREGISTER command.

Table 5-7. FREGISTER Command Keyword Parameter Descriptions

Parameter	Value	Description
USERID	application-id	This identifies the owner of the event notification record. It is used by TAS to associate registered file names with an owner (to be used when deregistering all file names or when obtaining event notification status). Use 1 to 12 alphabetic and/or numeric characters. This is a required field.

continued

Table 5-7. FREGISTER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
FILE	filename	This is the name of the file you want to register. This must be a valid OS 2200 filename and must include at least a qualifier and file name. This is a required field.
RUN	runstream	This is the name of the user-defined runstream that will be executed when this registered file is received. This must be a valid OS 2200 filename and must include at least a qualifier and file name. This is a required field.
OPTIONS	start-options	The options used to start the user-defined runstream. The valid start options are B, C, E to L, M, N, P, R to U, and W to Z. The X option is supported if the user has sufficient privileges. This field is optional.
WILD	wild-character	This indicates which character in the FILENAME parameter should be treated as a wild card when TAS matches an incoming file name with a registered one. The value must be alphabetic or numeric. Use only one character.
ONE_TIME_REG	YES	Deregisters the filename when a transfer is received that matches the filename that was registered.
	NO	Does not deregister the filename after a transfer is received that matches the filename that was registered.. The default is NO.

continued

Table 5-7. FREGISTER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
SAVE_STATUS	YES	Saves the filename and file transfer status until a Status Request command is received.
	NO	Does not save the file name or file transfer status. The default is NO.
CONTROL	control value	This is an octal value which TAS enters in the SETC parameter of the @START ECL statement it executes for the even notification runstream. This is a 1 to 4–digit field with a leading 0 and no digit greater than 7, for example 0235. This field is optional.
INITIATE	initiate	Indicates how to execute the runstream. Add = using an @ADD ECL statement. A response is not returned to the initiator of the command until the runstream completes. Start = using an @START ECL statement. A response is returned to the initiator of the command as soon as the @START is issued.

Examples

Example 5-10 shows how to register a single filename.

```
▶ ~C~▶FREG USERID=ftpuser FILE=QUAL*FILENAME.X RUN=QUAL*RUN.ELEMENT
▶**END COMMAND
```

Example 5-10. Registering a Filename

Example 5-11 shows how to register a filenamewith a wild card.

Example 5-11. Registering Multiple Filenames (cont.)

```
▶ ~C~▶FREG USERID=ftpuser FILE=QUAL*FILEX. RUN=QUAL*RUN.ELEMENT &
▶ ~C~&▶WILD=X
▶**END COMMAND
```

Example 5-11. Registering Multiple Filenames

Note: *See Section 3.14 for more information about registration.*

5.11. Transferring Information Requested by a Foreign Host (FSITE Command)

Use the FSITE command to send protocol not supported by the TAS commands. These protocols may only be sent to remote non-OS 2200 hosts. This command actually functions like a QUOTE command (whatever information you provide is sent to the remote host). However, TAS does not allow all protocols to be sent.

Note that you can also include FSITE information in the TRANSFER command, however, some FTP implementations require you to use the FSITE command prior to performing any other FTP functions.

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Command Format

```
FSITE              [HOST=hostid]  1
                   INFORMATION=information  2
                   [PASSWORD=remote-password]
                   [USERID=remote-user-id]
                   [ACCOUNT=remote-account-info]
```

You can omit the keyword portion, HOST=, when you use positional notation.

Keyword Parameters

Table 5-8 describes the keyword parameters for the FSITE command.

Table 5-8. FSITE Command Keyword Parameter Descriptions

Parameter	Value	Description
HOST=	host-id	The identifier of the foreign host. Do not use this parameter if a session is currently open to the desired host. If you enter a host name, the session is closed and a new session is opened to the specified host. When the command completes, the session remains open. Use 1 to 255 alphanumeric characters. For more information about specifying host-ids, see Section 1.

continued

Table 5-8. FSITE Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*INFO*RMATION=	information	The FTP protocol to be sent to the foreign host. This information must be enclosed in double quotes. The following FTP protocols are the only ones that may be entered: ALLO MKD RMD CDUP NOOP SITE CWD PWD SMNT Use 1 to 132 alphanumeric characters. This parameter is required.
*PASS*WORD=	remote-password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.
*USER*ID=	remote-user-id	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.
*ACCO*UNT=	remote-account-info	Use 1 to 25 alphanumeric characters.

Example

Example 5-12 shows how to transfer information requested by a foreign host. In this example we omit the keyword HOST because we are using positional notation.

```
▶ ~C~▶FSITE SD-01 INFO="CWD /home/guest4/tempfiles"
▶**END COMMAND
▶
```

Example 5-12. Transferring Information Using the FSITE Command

5.12. Getting File Registration Status (FSTATUS Command)

Use the FSTATUS command to get the saved filename and file status that is saved for the user.

You might then choose to deregister the filename.

Note: *The status is not saved unless you previously specified the Save Filename and Status option.*

Command Format

```
FSTATUS          [USERID=application-id]
                 [DREG-ENTRY=YES|NO]
```

Keyword Parameters

Table 5-9 describes the keyword parameters for the FSTATUS command.

Table 5-9. FSTATUS Command Keyword Parameter Descriptions

Parameter	Value	Description
USERID	application-id	This identifies the owner of the event notification record. Use 1 to 12 alphanumeric characters: a to z, A to Z, and 0 to 9. This is a required field.
DREG_ENTRY	YES	Deregisters the filename record that matches this saved record.
	NO	Does not deregister any filename records. The default is no.

Example

Example 5-13 shows how to get saved status.

```
▶ ~C~▶FSTA USERID=ftpuser
▶TAS    5R1     0629.1
▶** FTP1170 Warning status removed for;
▶  FILE =
▶  *ABC.DEF
▶  STATUS=0
```

Example 5-13. Saved Status Request

5.13. Beginning a Session (LOGIN Command)

Use the LOGIN command to open a session between two hosts. While a session is open, FPUT and FGET commands move files between hosts.

If a session is already open when this command is entered, the session is closed and a new session is opened. Any file transfer that is underway when LOGIN is entered completes before that session is ended.

You can also open a session by specifying a host-id on other FTP commands. Refer to "Methods of Transferring Files" in 1.3 for more information about sessions.

Note: *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

Command Format

```
LOGIN              HOST=host-id
                   [PASSWORD=remote-password]
                   [CLEARANCE_LEVEL=remote-clearance-level]
                   [USERID=remote-user-id]
                   [ACCOUNT=remote-account-info]
```

Keyword Parameters

Table 5-10 describes the keyword parameters for the LOGIN command.

Table 5-10. LOGIN Command Keyword Parameter Descriptions

Parameter	Value	Description
HOST=	hostid	The identifier of the host. Use 1 to 132 alphanumeric characters. For more information about specifying host-ids, see Section 1.
PASSWORD=	remote-password	The password, as required by the remote host. Use 1 to 18 alphanumeric characters.
CLEARANCE_LEVEL=	remote-clearance-level	The clearance level of the remote host. Enter a number between 0 and 64.
USERID=	remote-user-id	The user identifier, as required by the remote host. Use 1 to 12 alphanumeric characters.

continued

Table 5-10. LOGIN Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*ACCO*UNT=	remote-account-info	For an OS 2200 host, the account information includes the account number followed by the project-id. Use 1 to 25 alphanumeric characters. When you include a space, enclose the account information in double quotes.

5.14. Closing a Session (LOGOUT Command)

Use the LOGOUT command to end a session between two hosts.

Command Format

*LOGO*UT

Use the LOGIN command when you want to open a new session. While a session is open, FPUT and FGET commands move files between hosts.

You can also open a session by specifying a host-id on other FTP commands. Refer to "Methods of Transferring Files" in 1.3 for more information about sessions.

Note: *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

5.15. Creating a Directory on a Remote Host (MKD Command)

Use the MKD command to create a directory or subdirectory on a remote foreign host.

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Command Format

```
MKD                DIRECTORY=pathname  1
                   [HOST=host-id]
                   [USERID=remote-user-id]
                   [PASSWORD=remote-password]
                   [ACCOUNT=remote-account-info]
```

Keyword Parameters

Table 5-11 describes the keyword parameters for the MKD command.

Table 5-11. MKD Command Keyword Parameter Descriptions

Parameter	Value	Description
*DIR*ECTORY=	remote-pathname	The name of the directory or subdirectory you want to create on the remote host. Use 1 to 132 alphanumeric characters. This parameter is required.
HOST=	host-id	The identifier of the host where you want to create a directory or subdirectory. Use 1 to 255 alphanumeric characters. If you omit the host-id, the host to which you are currently logged in is used. Specify a host-id if a session is not currently active or if you want to close the current session and open a session with another host. For more information about specifying host-ids, see Section 1.
*USER*ID=	remote-user-id	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.
*PASS*WORD=	remote-password	he password, as required by the foreign host. Use 1 to 18 alphanumeric characters.

continued

Table 5-11. MKD Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*ACCO*UNT=	remote-account-info	The account number, as required to access the directory on the remote host. Use 1 to 12 alphanumeric characters.

Example

Example 5-14 shows how to create a directory. When a session is open, the full pathname is not required because D2 is a subdirectory under the current working directory.

```
▶ ~C~▶MKD D2
▶**FTP 257 Command processing successfully completed.
▶**MKD command successful.
```

Example 5-14. Creating a Directory on a Remote Foreign Host Using the MKD Command

5.16. Printing the Current Directory on a Remote Host (PWD Command)

Use the PWD command to print the name of the current working directory on a remote foreign host.

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Note: *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

Command Format

```
PWD             [HOST=host-id]
                [USERID=remote-user-id]
                [PASSWORD=remote-password]
                [ACCOUNT=remote-account-info]
```

Keyword Parameters

Table 5-12 describes the keyword parameters for the PWD command.

Table 5-12. PWD Command Keyword Parameter Descriptions

Parameter	Value	Description
HOST=	host-id	The identifier of the host where the directory resides. Use 1 to 255 alphanumeric characters. If you omit the host-id, the host to which you are currently logged in is used. Specify a host-id if a session is not currently active or if you want to close the current session and open a session with another host. For more information about specifying host-ids, see Section 1.
*USER*ID=	remote-user-id	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.
*PASS*WORD=	remote-password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.

continued

Table 5-12. PWD Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*ACCO*UNT=	remote-account-info	The account number, as required to access the directory on the remote host. Use 1 to 12 alphanumeric characters.

Example

Example 5-15 shows how to open a session with a remote host and display the name of the current working directory.

```
▶ ~C~▶PWD HOST=KP-01 USER=TAS1 PASS=PUBS
▶**FTP 257 Command processing successfully completed.
▶TAS      5R3Q2    0519.1
▶TAS 2200 - Connection With Remote Host Established.
▶**FTP 257 Command processing successfully completed.
▶  "src/tas/d2" is current directory.
```

Example 5-15. Printing the Name of the Current Directory Using the PWD Command

5.17. Removing a Directory on a Remote Host (RMD Command)

Use the RMD command to delete a directory on a remote foreign host.

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Note: *When you issue this command, the session remains open. See the subsection called "Ending" under 4.1, for information on how to close a session.*

Command Format

```
RMD                DIRECTORY=pathname  1
                   [HOST=host-id]
                   [USERID=remote-user-id]
                   [PASSWORD=remote-password]
                   [ACCOUNT=remote-account-info]
```

Keyword Parameters

Table 5-13 describes the keyword parameters for the RMD command.

Table 5-13. Remove Directory Command Keyword Parameter Descriptions

Parameter	Value	Description
*DIR*ECTORY=	remote-pathname	The name of the directory or subdirectory you want to delete on the remote host. Use 1 to 132 alphanumeric characters. This parameter is required.
HOST=	host-id	The identifier of the host where you want to delete a directory or subdirectory. Use 1 to 255 alphanumeric characters. If you omit the host-id, the host to which you are currently logged in is used. Specify a host-id if a session is not currently active or if you want to close the current session and open a session with another host. For more information about specifying host-ids, see Section 1.
*USER*ID=	remote-user-id	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.

continued

Table 5-13. Remove Directory Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*PASS*WORD=	remote-password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.
*ACCO*UNT=	remote-account-info	The account number, as required to access the directory on the remote host. Use 1 to 12 alphanumeric characters.

Example

Example 5-16 shows how to remove a directory. The example then verifies that the directory was removed by attempting to change to the directory that was removed.

```
► ~C~►RMD D2
►TAS       5R3Q5            0617.1
►Command Processing Completed Successfully.
```

Example 5-16. Removing a Directory Using the RMD Command

5.18. Renaming a File (RENAME Command)

Use the RENAME command to rename a file. The file must exist on a remote foreign host.

If you specify a host-id, any existing session is closed and a new session is opened with the specified host.

Command Format

```
RENAME          [HOST=host-id]  1
                FROM=old-file-name  2
                TO=new-file-name  3
                [PASSWORD=remote-password]
                [USERID=remote-user-id]
                [ACCOUNT=remote-account-info]
```

You can omit the keyword portions, HOST=, FROM=, TO=, and PASSWORD= when you use positional notation. Include the parameter values in this order.

Keyword Parameters

Table 5-14 describes the keyword parameters for the RENAME command.

Table 5-14. RENAME Command Keyword Parameter Descriptions

Parameter	Value	Description
HOST=	hostid	The identifier of the foreign host. Use 1 to 132 alphanumeric characters. For more information about specifying host-ids, see Section 1.
FROM=	from-file-name	The name of the file you want to rename. This must be a valid file name for the system on which the file resides. This parameter is required.
TO=	new-file-name	The new file name for the file you specify for the FROM = parameter. This must be a valid file name for the system on which the file resides. This parameter is required. For more information about specifying file names, see Section 1.
PASSWORD=	remote-password	The password, as required by the foreign host. Use 1 to 18 alphanumeric characters.

continued

Table 5-14. RENAME Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*USER*ID=	remote-user-id	The user identifier, as required by the foreign host. Use 1 to 12 alphanumeric characters.
*ACCO*UNT=	remote-account-info	Use 1 to 25 alphanumeric characters. When you include a space, enclose the account information in double quotes.

Example

Example 5-17 shows how to rename the file, SDFFILE1. In this example we omit the keywords HOST, FILE, and TO because we are using positional notation.

```
▶ ~C~▶RENA SD-01, SDFFILE1, SDFFILE2  USER=SITFJB
▶**END COMMAND
```

Example 5-17. Renaming a File Using the RENAME Command

5.19. Restarting a File Transfer (RESUME Command)

Use the RESUME command to recover a file transfer operation that abnormally terminates.

You can resume a file transfer that you sent:

- Within a local host
- From a local to remote host
- From a remote to a local host
- Between remote hosts

You can also indicate specifically where you want a file transfer to resume.

Note: *The file transfer facility uses a checkpoint file to recover a file transfer. Therefore, you must have specified a checkpoint file name in the TRANSFER command when you transferred the file. If you did not specify a checkpoint file name, you cannot recover the file.*

Command Format

```
RESUME  FILE=file-name  1
        [AT=checkpoint-id]  2
        [PASSWORD=(remote-password-1[,remote-password-2])]  3
        [CLEARANCE_LEVEL=(remote-clearance-level-1
                          [,remote-clearance-level-2])]
```

You can omit the keyword portions, FILE=, AT=, and PASSWORD=, when you use positional notation. Include the parameter values in this order.

Keyword Parameters

Table 5-15 describes the keyword parameters for the RESUME command.

Table 5-15. RESUME Command Keyword Parameter Descriptions

Parameter	Value	Description
FILE=	file-name	The name of the checkpoint file you specified in the TRANSFER, FGET, or FPUT command when you transferred the file. This must be a valid OS 2200 file name. This field is required.

continued

Table 5-15. RESUME Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
AT=	checkpoint-id	The identifier of a checkpoint marker listed in the checkpoint file. Indicates where you want the transfer to resume. When you omit the checkpoint-id, the file transfer resumes at the last checkpoint-id listed in the checkpoint file. For more information about checkpointing, see Section 1.
*PASS*WORD=	remote-password-1	The password you specified for remote-password-1 of the password parameter in the TRANSFER or FGET command when you transferred the file. This field is required when the file resides on either a: • Remote host • Local host, and the file has read/write keys Use 1 to 18 alphanumeric characters.
	remote-password-2	The password you specified for remote-password-2 of the password parameter in the TRANSFER or FPUT command when you transferred the file. This field is required when the file resides on either a: • Remote host • Local host, and the file has read/write keys Use 1 to 18 alphanumeric characters.
CLEARANCE_LEVEL=	remote-clearance-level-1	The clearance level for the file being sent. Enter a number between 0 and 64.
	remote-clearance-level-2	The clearance level for the file being received. Enter a number between 0 and 64.

5.19.1. Restarting a File Transfer (within a Local Host)

Function

Use this format to restart a file transfer within a local host.

Format

```
RESUME   FILE=file-name
         PASSWORD=(remote-password-1[,remote-password-2])]
```

See Table 5-15 for information about parameter values.

If you want to specify a restart point, see "Specifying a Restart Point for a File Transfer Recovery," later in this section.

Example

Example 5-18 shows how to restart a file transfer within a local host. In this example we do not specify any passwords because the files do not have read/write keys.

```
▸ ~C~▸RESU FILE=CHK
▸ **END COMMAND
```

Example 5-18. Restarting a File Transfer within a Local Host Using the RESUME Command

5.19.2. Restarting a File Transfer (Local to Remote)

Function

Use this format to restart a file transfer from a local host to a remote host.

Format

```
RESUME   FILE=file-name
         PASSWORD=(remote-password-1[,remote-password-2])]
```

See Table 5-15 for information about parameter values.

If you want to specify a restart point, see "Specifying a Restart Point for a File Transfer Recovery," later in this section.

Example

Example 5-19 shows how to restart a file transfer from a local host to a remote host. In this example we specify a password for the remote destination host.

```
▶ ~C~▶RESU FILE=CHK  PASS=LMB
▶ **END COMMAND
```

Example 5-19. Restarting a File Transfer from a Local to a Remote Host Using the RESUME Command

5.19.3. Restarting a File Transfer (Remote to Local)

Function

Use this format to restart a file transfer from a remote host to a local host.

Format

```
RESUME   FILE=file-name
         PASSWORD=(remote-password-1[,remote-password-2])]
```

See Table 5-15 for information about parameter values.

If you want to specify a restart point, see "Specifying a Restart Point for a File Transfer Recovery," later in this section.

Example

Example 5-20 shows how to restart a file transfer from a remote host to a local host. In this example we specify a password for the remote source host.

```
▶ ~C~▶RESU FILE=CHK  PASS=LMB
▶ **END COMMAND
```

Example 5-20. Restarting a File Transfer from a Remote to a Local Host Using the RESUME Command

5.19.4. Restarting a File Transfer (between Remote Hosts)

Function

Use this format to restart a file transfer between remote hosts.

Format

```
RESUME   FILE=file-name
         PASSWORD=(remote-password-1[,remote-password-2])]
```

See Table 5-15 for information about parameter values.

If you want to specify a restart point, see "Specifying a Restart Point for a File Transfer Recovery," later in this section.

Example

Example 5-21 shows how to restart a file transfer between remote hosts. In this example we specify a password for the remote source and destination hosts.

```
▸ ~C~▸RESU FILE=CHK  PASS=(LMB,FDT)
▸ **END COMMAND
```

Example 5-21. Restarting a File Transfer between Remote Hosts Using the RESUME Command

5.19.5. Specifying a Restart Point for a File Transfer Recovery

Function

Use the AT parameter to specify a checkpoint-id (checkpoint marker). The checkpoint-id indicates where you want to resume a transfer.

If you do not specify a value for the AT parameter, the transfer resumes at the last checkpoint-id in the checkpoint file.

You can:

- Use this parameter with any type of file transfer. (See the previous subsections).
- Restart a file transfer from any one of the checkpoint-ids reported in the checkpoint file.

Format

```
RESUME   FILE=file-name
         AT=checkpoint-id
         [PASSWORD=(remote-password-1[,remote-password-2])]
```

See Table 5-15 for information about parameter values.

Additional Information

To determine a restart point, you need to access the checkpoint file.

Display the checkpoint file using any OS 2200 system editor.

Caution

Do not change the contents of the checkpoint file. If you do, you may not be able to recover the file.

Select a checkpoint-id from the checkpoint file to use as the restart point for the file transfer. The checkpoint-id is located after the word, MARK, and before the equal sign. If you omit the hyphen and the 0, a value of 0 is assumed. For example:

```
MARK 1920-0 = 1920-0 16:17:41
```

In this example, you can specify the checkpoint-id as 1920-0 or 1920 with the same effect.

For additional information on checkpointing, see Section 1.

Example

Example 5-22 shows the contents of a sample checkpoint file.

```
FROM=FILEA
TO=SD-01::FILEB
USER=DDNJM
ACCO=696382860010
POSI=R
TYPE=S
TRAN=T
MODE=B
STRU=F
MAXR=3968
CHEC=CHK
MARK=10
MARK  640-0=640-0   16:17:40
MARK  1280-0=1280-0 16:17:41
MARK  1920-0=1920-0 16:17:42
MARK  2560-0=2560-0 16:17:42
MARK  3200-0=3200-0 16:17:43
MARK  3840-0=3840-0 16:17:43
MARK  4480-0=4480-0 16:17:43
```

Example 5-22. Sample Checkpoint File

Example 5-23 shows how to restart a file transfer by selecting 1920 (from Example 5-22) as the restart checkpoint-id. In this example we specify a:

- Checkpoint-id
- Password for a remote source host

```
▶ ~C~▶RESU FILE=CHK  AT=1920  PASS=LMB
▶ **END COMMAND
```

Example 5-23. Specifying a Restart Point Using the RESUME Command

5.20. Transferring a File (TRANSFER Command)

Use the TRANSFER command to transfer a copy of a file or element:

- Within a local host
- From a local to a remote host
- From a remote to a local host
- Between remote hosts

If a session is already open when a transfer command is entered, any file transfer in progress completes and the session is closed. The transfer is then made. No session is open when the transfer is complete.

Optionally, you can include more specific instructions about a file transfer. Using the TRANSFER command, you can:

- Define the sending file or element type
- Define maximum record length in the transmission file
- Identify data representation in the transmission file
- Place or replace data in the receiving file
- Define transmission data
- Identify when to take a checkpoint mark
- Define data structure in the transmission file
- Create a checkpoint file
- Specify site information requested by a foreign host

The parameter values you specify in the TRANSFER command depends on the:

- Type of file you transfer

  For example, you can transfer:

  - ASCII data
  - EBCDIC data
  - Binary data
  - An SDF file
  - A program file
  - An element of a program file
- Types of hosts involved in the transfer

  For example, you can transfer:

  - To or from an OS 2200 host
  - To or from a non-OS 2200 host

- Purpose of the transfer

  For example, you can transfer a file to a destination host for:

  - Temporary storage
  - Use or processing

To help you determine which values to specify in the TRANSFER command, see "File Transfer Guidelines," later in this section.

Command Format

```
TRANSFER        FROM=[host-id-1::]file-name-1[.element-name-1]  1
                TO=[host-id-2::]file-name-2[.element-name-2]  2
                [PASSWORD=(remote-password-1[,remote-password-2])]  3
                [USERID=(remote-user-id-1[,remote-user-id-2])]
                [CLEARANCE_LEVEL-(clearance-level)]
                [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
                [TYPE=SYMBOLIC|ALL|OMNIBUS|SDF|SOURCE|IOW]
                TRANSLATE=ASCII|EBCDIC|TRANSPARENT|L36]
                [MODE=STREAM|BLOCK|COMPRESSED]
                [STRUCTURE=FILE|RECORD]
                [MAX_RECORD_SIZE=7168|integer]
                [POSITION=REPLACE|ADD]
                [CHECKPOINT=file-name-3]
                [MARK=250|integer]
                [SITEINFO=information]
```

You can omit the keywords portions, FROM=, TO=, and PASSWORD=, when you use positional notation. Include the parameter values in this order.

Keyword Parameters

Table 5-16 describes the keyword parameters for the TRANSFER command. For additional help using TYPE, TRANSLATE and STRUCTURE, see Table 5-17.

Table 5-16. TRANSFER Command Keyword Parameter Descriptions

Parameter	Value	Description
FROM=	host-id	The host-id is the name of the host where the file resides. Use 1 to 24 alphanumeric characters. If you omit the host identifier, the local host is used. For more information about specifying host-ids, see Section 1.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
FROM= (continued)	file-name-1 element-name	Use file-name-1 and element-name-1 to specify the name of the file and element you want to transfer. You must specify a file name. This must be a valid file name for the system on which the file resides. For more information about specifying host-ids, see Section 1.
TO=	host-id	The host-id is the name of the host to which you are transferring the file or element. Use 1 to 24 alphanumeric characters. If you omit the host identifier, the local host is used. For more information about specifying host-ids, see Section 1.
TO= (continued)	fine-name-2 element-name-2	Use file-name-2 and element-name-2 to specify the name of the file and element to which you are copying. You must specify a file name. This must be a valid file name for the system on which the file resides. For more information about specifying file names, see Section 1.
*PASS*WORD=	remote-password-1 remote-password-2	Specifies the passwords and clearance level for the file transfer. Use 1 to 18 alphanumeric characters for a password. Use 2 alphanumeric characters for the clearance level. The default is blank characters. A password is generally required for a file on a remote host. A password is required for a file on a local host when the file has read/write keys or has a USE-name attached to it.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*PASS*WORD= (continued)	remote-password-1 remote-password-2	When you only specify remote-password-1, that password is used for the remote hosts involved in the transfer. When you specify both remote-password-1 and remote-password-2, remote-password-1 is used for the source host (FROM) and remote-password-2 is used for the destination host (TO). Use a space to separate the clearance level from the password.
*USER*ID=	remote-user-id-1 remote-user-id-2	Specifies the user-ids for the file transfer. Use 1 to 12 alphanumeric characters for a user-id. The default is the user-id on your local host. A user-id is required for a file on a remote host. A user-id is required for a file on a local host when the file has read/write keys or has a USE-name attached to it.
*USER*ID= (continued)	remote-user-id-1 remote-user-id-2	When you only specify remote-user-id-1, that user-id is used for both hosts involved in the transfer. When no remote hosts are involved, the user-id is used for both files on your local host. When you specify both remote-user-id-1 and remote-user-id-2, then user-id-1 is used for the source host (FROM), and user-id-2 is used for the destination host (TO).
CLEARANCE_LEVEL=	clearance-level-1 clearance-level-2	The clearance level as required by the host. Use a number between 0 and 63.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*ACCO*UNT=	remote-account-info-1 remote-account-info-2	For an OS 2200 host, account information includes the account number followed by the project-id. Use 1 to 25 alphanumeric characters. Use 1 to 12 alphanumeric characters to specify the account number, and 1 to 12 alphanumeric characters to specify the project-id. Specify the account information for the source host (FROM) first, followed by the account information for the destination host (TO). Enclose the account information in parentheses, and separate the source host information from the destination host information with a comma. When you specify account information for one host only, the file transfer facility uses it to access the remote host or hosts. The account number associated with your run is always used for processing on your local host.
TYPE=	*SYMB*OLIC	Transfers a symbolic element in the sending file to the receiving file at the local or remote host. The default is SYMBOLIC.
TYPE= (continued)	ALL	Transfers the entire file. This is the fastest way to transfer a file. Do not specify an element name with TYPE=ALL. To transfer an absolute or relocatable element, first move it to a file by itself and then transfer that file.
TYPE= (continued)	*OMNI*BUS	Transfers an omnibus element in the sending file to the receiving file at the local or remote host.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
TYPE= (continued)	SDF	Transfers an SDF file or program element as 8-bit binary data (the 9th bit of each byte is meaningless and ignored). All file control information is also ignored (not transferred). This is useful when the data portion of the file or element is usable on the other host. TAS uses SDF input/output to access the file or element. This type is not supported for transfers between OS 2200 hosts.
TYPE= (continued)	SOURCE	Transfers an ASCII text file. This type is not supported for transfers between OS 2200 hosts.
TYPE= (continued)	IOW	Transfers a file or omnibus program element as 8-bit binary data. • For a source file, the 9th (high-order) bit of the bytes in the last written track of the file is used to indicate the end of file. The first byte (in the last written track) with the 9th bit on indicates no more data is to be transferred. In the tracks preceding the last written track, the 9th bit of each byte is meaningless and ignored. • For a destination file, each eight bits of incoming data are stored in a byte with the 9th bit off (zero). When the last eight bits are stored, the next byte is set to octal '400' (9th bit is on) to indicate the end of file. All file control information is also ignored (not transferred). This is useful when the data portion of the file or element is usable on the other host. TAS uses ERIOW$ to access the file or element. This type is not supported for transfers between OS 2200 hosts.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*TRAN*SLATE=	*ASCI*I	ASCII is the most efficient data type between OS 2200 hosts. The default is: • ASCII when you transfer a symbolic element • TRANSPARENT when you transfer an entire program file or SDF file
*TRAN*LATE= (continued)	*EBCD*IC	Translates the file to 8-bit EBCDIC code during the transfer.
*TRAN*LATE= (continued)	*TRAN*SPARENT	Use TRANSPARENT when the data type is something other than ASCII or EBCDIC. Use for binary, floating point or control characters. Transfers an entire program file. Performs no translation in the transmission file. The default is: • TRANSPARENT when you transfer an entire program file or SDF file • ASCII when you transfer a symbolic element
*TRAN*LATE= (continued)	L36	Notifies a remote host that the local byte size of the transferred data is 36 bits (binary data). You do not need to specify this parameter to transfer files between OS 2200 hosts.
MODE=	*STRE*AM	Transfers data in a stream. This is the most efficient transfer mode between OS 2200 hosts. You cannot specify a checkpoint file if MODE=STREAM. The default is STREAM.
MODE= (continued)	*BLOC*K	Sends data as a series of blocks preceded by a header.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
MODE= (continued)	*COMP*RESSED	Use this mode when transferring data that contains numerous replications of fillers, such as program files. This mode is not supported for transfers between OS 2200 hosts.
*STRUC*TURE=	FILE	Transfers the file contiguously. This is the most efficient structure when transferring between OS 2200 hosts. When you use FILE when transferring an entire file, file control information associated with an OS 2200 SDF file is transmitted to the remote host. This can make the file unreadable to a non-OS 2200 host, although the file becomes readable when returned to the originating OS 2200 host. The default is FILE.
*STRUC*TURE= (continued)	*RECO*RD	Transfers the file in sequential record format. Use this structure when the destination host's file structure is record-oriented. The file transfer facility includes record trailers during transmission. Use this option when you transfer data to a non-OS 2200 host with a file structure that may be incompatible with OS 2200 file formats. STRUCTURE=RECORD transmits only the data portion in a record-oriented file or element (such as n SDF file or symbolic element). This data is readable on any host.
*MAX_R*ECORD_SIZE=	7168	Indicates the largest number of bytes to be passed as a message to DDP-PPC when STRUCTURE=RECORD is specified. The default is 7168 bytes (one track). The default is strongly recommended. The maximum is 7168 bytes.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
*MAX_R*ECORD_SIZE= (continued)	nnnnn	Specifies the number of bytes when the default is not valid. Specify a value when the destination host supports maximum record size less than 7168 bytes. Use 1 to 5 digits.
*POSI*TION=	*REPL*ACE	Replaces the file on the destination host with the file or element you are transferring. The default is REPLACE.
*POSI*TION= (continued)	ADD	Adds the file you are sending to the end of the existing file, or inserts the element you are sending into the receiving file. When you name an element that duplicates an existing element for deletion and replaces it with the new one.
*CHEC*KPOINT=	file-name-3	The name of the file that contains a record of the transfer commands and options and that records checkpoint-ids throughout a transfer. You must specify a checkpoint file name to use the RESUME command. This must be a valid OS 2200 file name. The RESUME command lets you restart a file transfer that abnormally terminates. You cannot specify a checkpoint file if MODE=STREAM.
MARK=	250	Indicates how often you want the file transfer facility to insert checkpoint-ids in the checkpoint file. The default is every 250 tracks. You cannot specify this parameter if MODE=STREAM.

continued

Table 5-16. TRANSFER Command Keyword Parameter Descriptions (cont.)

Parameter	Value	Description
MARK= (continued)	nnnnn	Specifies how often you want the file transfer facility to insert checkpoint-ids in the checkpoint file. This parameter is meaningful only when all of the following are true: • The sending file is on your local host • You specify the CHECKPOINT parameter • You did not specify MODE=STREAM You only need to specify the first half of the checkpoint-id (integer to the left of the equal sign). If you specify 0, no checkpoint-ids are inserted into the checkpoint file. For more information about checkpointing, see Section 1.
*SITE*INFO	information	Specifies information not included in the FTP protocol commands. Only certain foreign hosts request site information.

5.20.1. Transferring a File or Element (within a Local Host)

Function

Use this format to transfer a file or element within a local host.

Format

```
TRANSFER   FROM=file-name-1[.element-name-1]
           TO=file-name-2[.element-name-2]
           [PASSWORD=(remote-password-1[,remote-password-2])]
```

See Table 5-16 for information about parameter values.

To include additional file transfer information (for example, defining the file type), see "Including More Specific Information About a File Transfer," later in this section.

Example

Example 5-24 shows how to transfer an element within a local host. In this example we:

- Omit the keyword portions FROM= and TO= because we are using positional notation

- Specify passwords because the file has read/write keys

```
▸ ~C~▸TRAN  SYMELEMENTS.SYMA, SQA*SYMELEMENTS.SYMB  PASS=(HDA,FSD)
▸**END COMMAND
```

Example 5-24. Transferring an Element (within the Local Host) Using the TRANSFER Command

5.20.2. Transferring a File or Element (Local to Remote)

Function

Use this format to transfer a file or element from a local to a remote host.

Format

```
TRANSFER   FROM=file-name-1[.element-name-1]
           TO=[host-id::]file-name-2[.element-name-2]
           [PASSWORD=(remote-password-1[,remote-password-2])]
           [USERID=(remote-user-id-1[,remote-user-id-2])]
           [CLEARANCE_LEVEL=(clearance-level-1[,clearance-level-2])]
           [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
```

See Table 5-16 for information about parameter values.

If you want to include additional file transfer information (for example, defining the file type), see "Including More Specific Information about a File Transfer," later in this section.

Example

Example 5-25 shows how to transfer a file from a local host to a remote host. In this example we:

- Omit the keyword portions FROM= and TO= because we are using positional notation
- Specify a password for the remote destination host

```
▸ ~C~▸TRAN  SDFFILE, SD-01::SDFILE  PASS=DDK
▸**END COMMAND
```

Example 5-25. Transferring a File (Local to Remote) Using the TRANSFER Command

5.20.3. Transferring a File or Element (Remote to Local)

Function

Use this format to transfer a file or element from a remote to a local host.

Format

```
TRANSFER   FROM=[host-id::]file-name-1[.element-name-1]
           TO=file-name-2[.element-name-2]
           [PASSWORD=(remote-password-1[,remote-password-2])]
           [USERID=(remote-user-id-1[,remote-user-id-2])]
           [CLEARANCE_LEVEL=(clearance-level-1[,clearance-level-2])]
           [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
```

See Table 5-16 for information about parameter values.

If you want to include additional file transfer information (for example, defining the file type), see "Including More Specific Information about a File Transfer," later in this section.

Example

Example 5-26 shows how to transfer a file from a remote to a local host. In this example, for the remote source host, we specify a:

- Password
- User-id
- Account information

In the example we also include an ampersand (&) at the end of the first line to indicate the command continues on the next line.

```
▸ ~C~▸TRAN  FROM=4-3-0-3::SDFFILE.  TO=SDFILE.  PASS=BNK&
▸ ~C~&▸USERID=SITFJB  ACCO="696382860010 DDN"
▸**END COMMAND
```

Example 5-26. Transferring a File (Remote to Local) Using the TRANSFER Command

5.20.4. Transferring a File or Element (between Remote Hosts)

Function

Use this format to transfer a file or element between remote hosts.

Format

```
TRANSFER   FROM=[host-id::]file-name-1[.element-name-1]
           TO=[host-id::]file-name-2[.element-name-2]
           [PASSWORD=(remote-password-1[,remote-password-2])]
           [USERID=(remote-user-id-1[,remote-user-id-2])]
           [CLEARANCE_LEVEL=(clearance-level-1[,clearance-level-2])]
           [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
```

See Table 5-16 for information about parameter values.

If you want to include additional file transfer information (for example, defining the file type), see "Including More Specific Information about a File Transfer," later in this section.

Example

Example 5-27 shows how to transfer an element between remote hosts. In this example, for both the remote source and destination hosts, we specify a:

- Password
- User-id
- Account information

In the example we also include an ampersand (&) at the end of the first and second line to indicate the command continues on the next line.

```
▸ ~C~▸TRAN  FROM=BC-01::SYMELEMENTS.SYM  TO=QUE-A::SYMELEMENTS.SYM &
▸ ~C~&▸PASS=(BNK,CAZ)  USERID=(SITFJB,BBMET1)  ACCO=("ST-105 DB","SB-101 DDN")
▸**END COMMAND
```

Example 5-27. Transferring an Element (between Remote Hosts) Using the TRANSFER Command

5.20.5. Including More Specific Information about a File Transfer

When you know the characteristics of the source and destination hosts, you can:

- Use additional parameters in the TRANSFER command to provide more specific file transfer information
- Transfer a file more efficiently

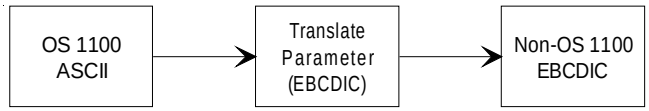
In the TRANSFER command, you can also:

- Define the sending file or element type (TYPE parameter)
- Identify data representation in the transmission file (TRANSLATE parameter)
- Define transmission data (MODE parameter)
- Define data structure in the transmission file (STRUCTURE parameter)
- Define maximum record length in the transmission file (MAX_RECORD_SIZE parameter)
- Place or replace data in the receiving file (POSITION parameter)
- Create a checkpoint file (CHECKPOINT parameter)

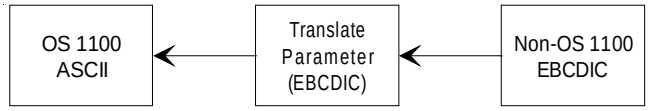
- Identify the frequency with which checkpoint markers are written to the checkpoint file (MARK parameter)
- Specify information not included in the FTP protocol commands requested by a foreign host (SITEINFO parameter)

There is a default value for each parameter. The default represents the most efficient transfer of data between two OS 2200 hosts.

Include the same parameters when you retrieve a file from a host as when you first sent the file. For example, when you transfer a data file between your OS 2200 host that uses ASCII data representation and a foreign host that uses EBCDIC representation, choose EBCDIC for the TRANSLATE field.



When you transfer the file from your OS 2200 host to the other host, specifying EBCDIC causes the data to be translated from ASCII to EBCDIC.When you retrieve the file from the other host to your OS 2200 host, specifying EBCDIC results in translation of the data from EBCDIC to ASCII.



Format

Use the following format to enter:

- All of the required information for the particular type of transfer you want to perform (See previous subsections)
- Any additional information (Guidelines and examples follow this page.)

```
TRANSFER        FROM=[host-id-1::]file-name-1[.element-name-1]
                TO=[host-id-2::]file-name-2[.element-name-2]
                [PASSWORD=(remote-password-1[,remote-password-2])]
                [USERID=(remote-user-id-1[,remote-user-id-2])]
                [CLEARANCE_LEVEL-(clearance-level)]
                [ACCOUNT=(remote-account-info-1[,remote-account-info-2])]
                [TYPE=SYMBOLIC|ALL|OMNIBUS|SDF|SOURCE|IOW]
                TRANSLATE=ASCII|EBCDIC|TRANSPARENT|L36]
                [MODE=STREAM|BLOCK|COMPRESSED]
                [STRUCTURE=FILE|RECORD]
                [MAX_RECORD_SIZE=7168|integer]
                [POSITION=REPLACE|ADD]
                [CHECKPOINT=file-name-3]
                [MARK=250|integer]
                [SITEINFO=information]
```

See Table 5-16 for information about parameter values.

Examples

Example 5-28 shows how to transfer an omnibus element within the local host.

```
▸ ~C~▸TRANSFER FROM=OMNFILE.TST TO=ZZZ*FILE.OMNTEST &
▸ ~C~&▸TYPE=OMN
```

Example 5-28. Transferring an Omnibus Element within the Local Host Using the TRANSFER Command

In this example, you can omit the TRANSLATE= and STRUCTURE= keyword parameters because TRANSPARENT and FILE are the defaults.

Example 5-29 shows how to transfer a symbolic element from a remote host to a local host.

```
▸ ~C~▸TRANSFER FROM=AB-01::FTEST.ELT TO=FTPTEST.ELT &
▸ ~C~&▸PASS=A STRU=FILE TRANSLATE=ASCII
```

Example 5-29. Transferring a Symbolic Element from a Remote Host to the Local Host Using the TRANSFER Command

Example 5-30 transfers a symbolic file containing EBCDIC code from the local host to a remote host.

```
▸ ~C~▸TRANSFER FROM=SDFTEST. TO=AB-01.:ZZZ*SDF1. PASS=A &
▸ ~C~&▸TRANSLATE=EBCDIC STRU=RECORD TYPE=SYM
```

Example 5-30. Transferring a File Containing Ebcdic Code from the Local Host to a Remote Host Using the TRANSFER Command

Example 5-31 transfers a local file to a remote file as sequential records.

```
▸ ~C~▸TRANSFER FROM=DAY*FILES TO=AC-02.:DAY2*FILE2 &
▸ ~C~&▸PASS=Z STRU=RECORD TRANSLATE=ASCII
```

Example 5-31. Transferring a Local File to a Remote File as Sequential Records

5.20.6. File Transfer Guidelines

Use the following guidelines to help you determine which parameter values to specify in the TRANSFER command. Sample transfer situations follow this information.

Guidelines for All Types of Transfers

For all types of transfers, follow these guidelines:

- Know what types of hosts are involved in a transfer.

  TAS recognizes the types of hosts (OS 2200 versus non-OS 2200 host) involved in a file transfer, and transfers a file according to this information.

- Know the level of FTP implementation for each host. (See FHELP.)

  FTP protocol implementations can include different functionality. For example, many implementations do not accept record structure (STRUCTURE=RECORD).

- You may want to transfer a file to a host for temporary storage. That is, the file is not used on the destination host, only stored and returned later to the original host. Specify STRUCTURE=FILE and TRANSLATE=TRANSPARENT. If TAS is acting as the server for the transfer, the user on the remote host should specify whatever parameters his system requires to cause the FTP protocol commands "STRU F" and TYPE I" to be sent.

- Specify a checkpoint mark only when:
  - You specify a checkpoint file name
  - The sending file is on your local host

- Do not specify a checkpoint file name when you specify MODE=STREAM.

Guidelines for Transfers between OS 2200 Hosts

When you transfer a file between OS 2200 hosts, follow these guidelines:

- Use STRUCTURE=FILE for the fastest transfer
- When using the Position parameter:
  - Do not replace an element with a file.
  - Add only elements to a program file.
  - When you add an element, you must specify an element name for both the FROM and TO parameters.
  - Do not add data to an element.
  - Do not add data to an SDF file.
  - Do not specify SOURCE,SDF or IOW for TYPE.
  - Do not specify MODE=COMPRESSED.

Guidelines for Transfers Involving Foreign Hosts

When you transfer a file involving a foreign host, follow these guidelines:

- Many foreign hosts only support file structure (STRUCTURE=FILE). They do not support record structure. When you transfer ASCII data files to and from these foreign hosts, specify TRANSLATE=ASCII and STRUCTURE=FILE.

  When the sending file is on your local host, TAS does not send the file control information. TAS appends a carriage return/line feed (CRLF) sequence at the end of each data image before sending it to the foreign host.

  When the receiving file is on your local host, TAS strips off the CRLF sequences before storing the data in your local file.

  Specifying TRANSLATE=EBCDIC and STRUCTURE=FILE will have the same results as specifying TRANSLATE=ASCII and STRUCTURE=FILE, with the added EBCDIC-to-ASCII or ASCII-to-EBCDIC conversion. Acting as the server, TAS performs this same processing if FTP protocol commands "TYPE A" (or "TYPE E") and "STRU R" are received from a foreign host.

- When you transfer an OS 2200 binary data file to a foreign host for processing purposes, you have these options:
  - You may want TAS to inform the foreign host that you sent the file from a 36-bit word-oriented host (using the "TYPE L 36" command).
  - To cause TAS to send the FTP protocol command "TYPE L 36," specify STRUCTURE=FILE and TRANSLATE=L36.
  - Note that many foreign hosts do not accept the "TYPE L" protocol, and other foreign hosts accept "TYPE L," but cannot convert the data for processing.
  - If the file contains 8-bit binary data in 9-bit bytes (the 9th bit of each byte is meaningless and is not transferred), you have two options:
    - If the data resides in an SDF file or program element, you can specify TRANSLATE=TRANSPARENT, STRUCTURE=FILE and TYPE=SDF. In this case, TAS does not transfer any file control information, and sends FTP protocol, "TYPE I."
    - If the data resides in a non-SDF file, specify TRANSLATE=TRANSPARENT, STRUCTURE=FILE and TYPE=IOW. TAS sends FTP protocol, "TYPE I."
- When you specify TRANSLATE=EBCDIC, TAS, acting as the initiator, will convert the data from ASCII to EBCDIC when your local host is the source host, and from EBCDIC to ASCII when your local host is the destination host. TAS will do this conversion when acting as the server, if "TYPE E" FTP protocol is received.
- Use MODE=COMPRESSED with discretion, as it requires additional TAS processing. Use only this mode when the file you transfer contains large numbers of replicated characters (for example, ASCII spaces or binary zeros). Also, the file transfer is rejected when the remote host does not support compression (FTP protocol "MODE C").

Acceptable Parameter Combinations

Table 5-17 shows acceptable combinations for specifying the Type, Translate, and Structure parameters in the TRANSFER command.

In the table, the first column indicates the type of file or element you want to transfer. The remaining columns indicate the possible combination of values you can specify for the Type, Translate, and Structure parameters.

Table 5-17. Guidelines for Using the Type, Translate, and Structure Parameters

File or Element Transferred	Type	Translate	Structure
SDF file	Sym All Iow[1] Sdf[1]	ASCII or EBCDIC Transparent or L36 Transparent Transparent	File or Record File File File
Program file	All	Transparent or L36	File
Symbolic Element	Sym Sdf[1] [2]	ASCII or EBCDIC Transparent	File or Record File
Omnibus Element	Omn Sdf[1] [2] Iow[1]	Transparent or L36 Transparent Transparent	File or Record File File

[1]Only 8 bits of each byte is transferred. See Table 5-16for a description of TYPE=SDF and TYPE=IOW.

[2]TAS looks for an omnibus element first. If not found, it then looks for a symbolic element.

5.20.7. Sample File Transfer Situations

Table 5-18 shows various sample transfer situations. Use these samples to help you determine recommended parameter values to perform different types of transfers.

Table 5-18 includes:

- Type of file or element to be transferred
- Types of hosts involved in the transfer
- Purpose of the transfer

- Recommended parameter values to specify on the TRANSFER screen

When a foreign host is involved, we include the FTP protocol commands that TAS receives when the transfer is initiated by the other host.

Note: *For these samples, the local host is an OS 2200 host with TAS installed.*

Table 5-18. Sample File Transfer Situations

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
Program file	OS 2200 to OS 2200	Use on destination host	STRUCTURE=FILE TRANSLATE=TRANSPARENT
SDF data file (containing ASCII characters)	OS 2200 to OS 2200	Use on destination host	STRUCTURE=FILE TRANSLATE=TRANSPARENT
Print file	OS 2200 to OS 2200	Print on destination host	STRUCTURE=FILE TRANSLATE=TRANSPARENT
Absolute element	OS 2200 to OS 2200	Use on destination host	1. Copy the absolute element to an empty program file on your local host 2. Transfer that file to the destination host using: STRUCTURE=FILE TRANSLATE=TRANSPARENT
ASCII symbolic element	OS 2200 to OS 2200	Add to existing program file on destination host	STRUCTURE=RECORD TRANSLATE=ASCII POSITION=ADD
Omnibus element	OS 2200 to OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=TRANSPARENT TYPE=OMNIBUS

continued

Table 5-18. Sample File Transfer Situations (cont.)

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
ASCII file	Non-OS 2200 to OS 2200	Temporary storage (to be returned to foreign host)	STRUCTURE=RECORD TRANSLATE=ASCII When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=ASCII When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE A or STRU F and TYPE A. Use the same procedure to transfer the file back to the foreign host.
Program file	OS 2200 to non-OS 2200	Temporary storage (to be returned to local host)	STRUCTURE=FILE TRANSLATE=TRANSPARENT When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU F and TYPE I.
ASCII data file	OS 2200 to non-OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=ASCII When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=ASCII When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE A or STRU F and TYPE A.

continued

Table 5-18. Sample File Transfer Situations (cont.)

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
ASCII symbolic element	OS 2200 to non-OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=ASCII When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=ASCII When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE A or STRU F and TYPE A.
Binary file	OS 2200 to non-OS 2200	Temporary storage (to be returned to local host)	STRUCTURE=FILE TRANSLATE=TRANSPARENT When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU F and TYPE I. Use the same values to retrieve the file.
Omnibus element	OS 2200 to non-OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=TRANSPARENT TYPE=OMNIBUS When the transfer is initiated by the foreign host, the FTP protocol commands should be STRU R and TYPE I.
EBCDIC data file	Non-OS 2200 to OS 2200	Use on destination host	STRUCTURE=RECORD TRANSLATE=EBCDIC When the foreign host does not support record structure, specify: STRUCTURE=FILE TRANSLATE=EBCDIC When the transfer is initiated on the foreign host, the FTP protocol commands should be STRU R and TYPE E or STRU F and TYPE E. The data in the file will be converted by TAS from EBCDIC to ASCII character format.

continued

Table 5-18. Sample File Transfer Situations (cont.)

Type of File or Element	Hosts Involved	Transfer Purpose	Recommended Field Values
Binary file of 8-bit data	OS 2200 to non-OS 2200 or Non-OS 2200 to OS 2200	Possible use on destination host	TRANSLATE=TRANSPARENT TRANSLATE=EBCDIC When the data for the OS 2200 host comes from or goes to a file that you will access via ER IOW$, specify TYPE=IOW. When the data for the OS 2200 host comes from or goes to an SDF data file or an SDF program element, specify TYPE=SDF.

Appendix A
TAS*FTPMSG Error Messages File

This appendix lists the possible error messages that the file transfer facility can encounter when a user on a remote host invokes the file transfer facility.

The error messages are written to the file TAS*FTPMSG or the DDP-PPC log file.

In the file, each error message includes:

- A time and date stamp
- The message number
- The message description

For some messages in this appendix, we provide further help in addition to the message description.

For information about how to access this file, see Section 1.

FTP1100	The FTP monitor is now active.
FTP1110	File Transfer Process internal error occurred when registering for TRMRG notification. No further commands can be processed. Please report the problem to your system administrator or contact your Unisys representative.
FTP1120	The following MCP error message was received when the FTP MONITOR issued an MCP SIGNON request: message text
FTP1130	The following MCP error message was received when the FTP MONITOR issued a PASSIVE OPEN request: message text
FTP1140	The following MCP error message was received when the FTP monitor issued an MCP PASSOFF request: message text.
FTP1150	The following MCP error message was received when the FTP MONITOR issued a receive of the open id: message text
FTP1200	The MCP returned conflicting error messages. An error status and an ok value. The FTP monitor is shutting down. Please report the problem to your system administrator or contact your Unisys representative.

FTP1300	The FTP worker activity was unable to sign onto the MCP. Please report the problem to your system administrator or contact your Unisys representative.
FTP1305	A message was received by SPI-QUIT after a CLOSE was performed. Please report the problem to your system administrator or contact your Unisys representative.
FTP1310	File Transfer Process worker activity timed out waiting for a command from the remote host. The conversation with this host will be closed. This condition does not affect the FTP monitor or processing with other remote hosts.
FTP1320	File Transfer Process worker activity received an abort indication from the remote host. The conversation has been aborted.
FTP1330	File Transfer Process worker activity received an abort indication when sending a message. The conversation has been aborted.
FTP1400	There are insufficient DDP 1100 resources available to service your request. Please try again later.
FTP1410	There is currently not enough memory for FTP to execute the current command. Please try again later.
FTP1420	File Transfer Process internal error occurred allocating internal table space to service your request. Please report the problem to your system administrator or contact your Unisys representative.
FTP1430	File Transfer Process internal error occurred at location nn while allocating buffer space to service your request. Please report the problem to your system administrator or contact your Unisys representative.
FTP1440	File Transfer Process internal error occurred at location nn while deallocating buffer space.Please report the problem to your system administrator or contact your Unisys representative.
FTP1500	The following MCP message was received: message text
FTP1510	MCP error number nn received on a SIGNON request. Please report the problem to your system administrator or contact your Unisys representative.
FTP1520	The following MCP message was received on a SIGNOFF request: message text
FTP1530	MCP internal error number nn received on an OPEN request. Please report the problem to your system administrator or contact your Unisys representative.

FTP1540	The following MCP message was received on a RECEIVE request: message text
FTP1550	The following MCP message was received on a SEND by SPI-CONTROL or QUIT: message host
FTP1560	The following MCP message was received on a CLOSE by SPI-QUIT: message text
FTP1570	The following MCP message was received on an ABORT request: message test
FTP1580	MCP error number nn received on a PASSOFF request. Please report the problem to your system administrator or contact your Unisys representative.
FTP1710	MCP internal error number nn received by the FTP user run on a PASSOFF request. Please report the problem to your system administrator or contact your Unisys representative.
FTP1720	FTP internal error was received registering the FTP user run for TRMRG notification. Please report the problem to your system administrator or contact your Unisys representative.

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